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★ SEP 29 1930

U. S. Department of Agriculture
Wednesday, October 1, 1930

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YOUR FARM REPORTER AT WASHINGTON

NOT FOR PUBLICATION

Speaking Time: 10 minutes.

Poultry Interview No. 55: FEEDING LAYERS FOR EGG PRODUCTION

ANNOUNCEMENT: We have asked Your Farm Reporter at Washington to present at this time a report on feeding hens and pullets for egg production. In view of feed conditions in many parts of the country, we believe that this discussion will be of unusual interest. And it's very timely. Your Reporter tells you about his interview with Mr. A. R. Lee, who—as you know—is a U.S. Department of Agriculture poultry husbandman. All right, Mr. Farm Reporter, tell us.....

Two questions have often been asked about feeding laying hens this fall.

"Should I cut down on feeding?"

And, "Will it pay to substitute wheat for corn?"

Mr. Lee's answer to the first question is a very emphatic "No." To the second one he replies with an almost equally emphatic "Yes, under conditions prevailing in many parts of the country."

He believes that it will pay to feed well this fall. "Plenty of feed gives good returns at this season of the year, always," he asserted. "Just remember that pullets will not come into laying unless they're well fed. And hens will not continue to lay without proper feeding."

"Another reason is that eggs prices go up at this season, and we can't hardly afford not to take advantage of a price rise. It takes only a few extra eggs to pay for a good many pounds of feed."

"What a wonderful difference just a few cents make—when they're spent for feed," I suggested.

"Yes, and especially at this time of year," he said. "Now, it's true that corn prices are high in some sections, but cheaper rations can be worked out, reducing the amount of corn. Present prices of corn and wheat are such that it's good economy to use more wheat and wheat products, and less corn."

Here, for instance, is a suggested ration, containing wheat. I'll give you a second or two to reach for pencil and paper, in case you want to jot down the ingredients...Ready? Here's the ration: Twenty pounds of bran—20 pounds of middlings—20 pounds of corn meal—20 pounds of meat

scrap----15 pounds of ground oats-----2 pounds of dried buttermilk----2 pounds of fine oyster shell---0---and one pound of salt, Altogether, you'll notice this adds up to 100 pounds of mash feed. And it contains a total of 40 pounds of wheat bran and wheat middlings, both of which are relatively cheap right now. Ground wheat could be used in place of wheat bran and middlings.

For scratch grains, says Mr. Lee, you might take 55 pounds of wheat, 30 pounds of yellow corn and 15 pounds of oats.

Now, if these rations don't exactly suit your needs, why don't you get a copy of Farmers' Bulletin No. 1541-F, called "Feeding Chickens," and find one that does suit you? You can run through the rations given in that bulletin and in place of part of the corn or corn meal substitute wheat---middlings---or shorts.

The question might occur to you: "Am I feeding enough corn?" But you needn't worry about that, according to Mr. Lee. Corn is an excellent poultry feed, of course, but a large percent is not essential, by any means. In fact, poultry in some other countries seem to get along fine with very little, or no corn. There's even been a sort of prejudice against corn in England, Mr. Lee tells me. Over there they not only feed a small proportion of corn, but many folks still consider that it is too heavy and too fattening to give best results. I simply cite this to show that corn is not absolutely necessary.

The main points in getting hens to lay at this time of year, are summed up by Mr. Lee as follows: Liberal feeding, plenty of hopper space for dry mash, and a moist feed of mash in addition to hopper feeding. The addition of a moist mash mixed with milk will also help, he suggests. And of course there's the matter of artificial lights. If artificial lighting is used to stimulate egg production the layers will need additional feed.

"Many people ask me about the proprietary feeds, so highly advertised in the magazines," Mr. Lee remarked. "I would say that such feeds aren't necessary. In my opinion, it is more economical simply to feed a good balanced ration, including milk."

He went on to say that all-mash feeding seems to be growing in popularity. Liberal feed^{ing} of mash undoubtedly increases the production of eggs. It costs a little more, but at the same time it reduces the feed cost per egg, and thus increases the profits above feed cost. Spend an extra nickel and make an extra dime^{is}, a good rule to go by.

And by the way, I suppose you've heard about the most recent development in all-mash feeding. They're feeding mash in the form of pellets---you might call them pills. This prevents waste, and besides it puts the mash into very palatable form. Mr. Lee tells me there's already considerable interest in this new idea over in England, where it originated.

Now, let's assume that you keep your hens confined during the fall and winter. If you do, it means that you have to be especially careful to provide a perfectly balanced feed. This year it may be necessary, in many sections, to feed alfalfa hay, alfalfa meal, soybean hay and other substitutes for green feed, since green feed itself is rather scarce. Add to this feed, 1 per cent of cod-liver oil in the mash, and any vitamin deficiency in the mash should be taken care of.

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Bone meal and limestone, or oyster shell and salt ^{necessarily} are of course, to supply the essential minerals. The two lime products---limestone and oyster shell---are especially necessary feeds for good egg production.

I made it a point to ask about possible deficiencies in the iodine content of the ration. I've noticed, in the papers and magazines, that there seems to be considerable interest in iodine feeding, in both the United States and England.

"There doubtless is a deficiency of iodine in some sections," Mr. Lee told me. "But it does not appear to be general. I'd say that the use of iodized salt and fishmeal, should be all that's needed to supply any deficiency that may exist."

I also inquired about mixing feeds at home. I was informed that commercial-mixing of mash is being done more and more. And that the quality of ready-mixed feeds is generally very good.

"For small flocks and for farms where all feed is bought ready-mixed feeds are desirable," said Mr. Lee. "But if part of the feed is raised at home, it is desirable to prepare the rations yourself, buying only the high-protein feeds."

Incidentally, if you raise your own grain, he suggests using ground wheat in place of bran or middlings.

And now, to sum up. First, good laying rations consist of a high-protein mash, a scratch mixture, green feed, and mineral supplements---plus plenty of good clean water.

Then, feed liberally. Remember that it is the extra feed eaten, above the amount required to maintain good health, that determines profits from egg production.

ANNOUNCEMENT: Your Farm Reporter at Washington has just brought you a report on feeding laying hens for high egg production. He called your attention to Farmers' Bulletin No. 1541-F, called "Feeding Chickens." And if you would like to have a copy of this bulletin, simply write to Station _____ or direct to the U.S. Department of Agriculture in Washington.

★ SEP 28 1930 ★

U. S. Department of Agriculture

YOUR FARM REPORTER AT WASHINGTON.

Thursday, Oct. 2, 1930.

Federal Farm Board Interview No.55:

Dairy Co-ops to Stop Dumping

ANNOUNCEMENT: What are the co-ops doing? ----- Your Farm reporter at Washington is now keeping his ear to the ground at the Federal Farm Board to learn what's stirring among farmers' organizations. Today, he reports on recent developments in milk and butter on the West Coast. Those developments are of significance and interest to farmers throughout the United States; especially dairy farmers and members of creamery associations -----Well, Mr. Reporter? -----

Butter co-ops spread over the entire West Coast have lined up together to better stabilize marketing.

Oregon, which used to be the dumping ground for butter on the Pacific Coast, now has a big state-wide co-op organized. That new association of co-op creameries has joined with the Washington State and the California regional organizations in an agency agreement. Each of the three has agreed to sell its surplus through the other two, instead of through private commission agencies, in their territory.

Those seem to be the high points in recent developments, as outlined to me by Mr. E. T. Hobart, marketing specialist of the co-op division of the Federal Farm Board.

The parties to that commission agency agreement are the well-known United Dairymen of Washington, and association made up of ten cooperative creameries in the state of Washington; the Challenge Cream and Butter Association, made up of seventeen creameries in California, Idaho, Utah, and Oregon, with headquarters at Los Angeles, and distribution offices in the San Francisco Bay area and the area around Los Angeles; and the new Oregon Association, made up of leading co-op creameries in the Portland, Oregon, market.

And when we speak of co-op creameries of the West Coast, we mean Creamery with a capital "C". Some of the individual creamery members of those West Coast associations are units making over five million pounds of butter. Most of them make over a million pounds. A creamery there is quite different from some of the little plants in the Middle West which make a few hundred thousand pounds.

Mr. Hobart says the big Coast creameries are more efficient plants.

Their cost of operation is considerably lower.

Their big-scale operation gives them a chance to manufacture casein and milk powder as by-products, where the small plant couldn't afford to buy the expensive machinery necessary or could not command a big enough volume of milk to make the by-product manufacture pay at present prices.

Practically all the larger creameries of Washington are whole-milk creameries and some of them manufacture evaporated milk, as well as butter and cheese. The Lower Columbia Cooperative Dairy Association, which is one branch of the new Oregon organization, and itself operates practically all the plants between Portland and the mouth of the Columbia River, has developed a very successful ice-cream business in Portland as a side-line.

With all their big-scale business, however, the Coast creameries have had their market troubles. Heretofore, with no organization of creameries in the Portland, Oregon, market, that market has been a dumping ground for butter from other sections. The fight for the Portland market has resulted in low prices and poor quality butter, and the first job of the new Oregon association of co-ops will be to bring up the quality of butter in that territory.

It has taken several months to form the big regional association, because the organization of some of the member creameries had to be revamped to make them more truly farmer owned and controlled. As in many other parts of the country, in the early days when the farmers started a creamery, they lacked money to finance it themselves and took in merchants and bankers as members. Now, in order to comply with the provisions of the Capper-Volstead Act, they are being reorganized to bring control into the hands of the farmers' themselves by the transfer of all voting power to producer members.

The United Dairymen of Washington has for a number of years sold its products through a sales agency known as the Consolidated Dairy Products which was partly owned by the co-ops and partly by private individuals. That big Washington co-op now plans to take over the entire sales agency as its own market organization. That is another case in which the farmers' themselves are getting more complete control of the market machinery.

Washington and Oregon are surplus butter producing regions. As a rule, much of that surplus finds a market in San Francisco and Los Angeles.

The big Challenge Cream and Butter Cooperative Association already gets more than half the butter which comes into Los Angeles and about one-third which comes into San Francisco. However, as Mr. Hobart explains, what used to happen is that big shipment to San Francisco from the North often caused a drop in prices. When that butter was gone, butter prices would go up again. The violent fluctuations in prices were far out of proportion to any sound economic reason. The Oregon and Washington co-ops mostly sold on consignment to independent commission merchants.

Now the Challenge of California, and the big Oregon association of creameries and the Washington association, have agreed to sell on consignment to each other instead of to independent merchants. Under that arrangement, far more butter for Los Angeles and San Francisco will pass through cooperative organizations, and give the co-ops a better chance to stabilize marketing.

[Faint, illegible handwritten notes]

And there is not only this agreement between the big associations of co-ops which cover the Coast but there will be a tie-up with the Land-o-Lakes, the big regional butter organization of the Middle West, by which in case of shortage or surplus in either region the co-ops will call on each other rather than on independent merchants to sell their stuff on commission.

For instance, when the Coast co-ops have a shipment of surplus milk-powder to send East, instead of consigning it as heretofore to some private commission agency, they will consign it to the Land-o-Lakes. Land-o-Lakes will likewise use the big Coast co-ops as its selling agent.

Of course, Mr. Hobart says, there always will be a seasonal fluctuation in butter prices, and prices will have to keep in line with the prices of Australian butter and the prices of butter from our Eastern States plus the freight rates. But these agency agreements are an important step in steadying prices and bringing about more orderly marketing of dairy products on our West Coast.

ANNOUNCEMENT: You have just heard a report of an interview with Mr. E. T. Hobart, butter specialist of the Federal Farm Board cooperation between dairy co-ops. The farm Board is encouraging the greatest cooperative movement this country has seen, and Station ----- cooperates with the Board and the United States Department of Agriculture in keeping you in touch with developments.

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SEP 24 1930

Friday, October 3, 1930

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YOUR FARM REPORTER AT WASHINGTON

NOT FOR PUBLICATION

Speaking Time: 10 minutes

Dairy Interview No. 55: "BEATING" THE DROUTH THROUGH CULLING

ANNOUNCEMENT: Your Farm Reporter at Washington has been chatting this week with an old friend of his---and yours: Dr. J. C. McDowell, veteran dairy husbandman of the U. S. Department of Agriculture. He brings you today Dr. McDowell's ideas on what to do about the feed situation this fall and winter. If we were to give this report a title, we'd probably call it, "Beating the Drouth---and Feed Shortage---Through Culling." That's the headline. Now, Mr. Reporter, you give us the story. ...

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Last winter, soon after the break in the stock market, Dr. McDowell met with a group of dairy specialists of a middlewestern agricultural college. At that meeting they asked him what he thought should be done to meet the slump in prices. Should they meet the situation by cutting down on the feed of the dairy herd? Or was there a better way?

Well, as Dr. McDowell saw it, there WAS a better way. And that way was to cull out every low-producing cow that was not paying a profit under the PREVAILING conditions.

He pointed out that the highest-producing cows in the herds of that state would continue to pay a profit under still lower prices; and that many low-producing cows in these same herds would NOT pay a profit even under NORMAL conditions.

"Get rid of the low-producers," he advised. "And then keep right on culling until you've culled out ALL cows which do not pay a reasonable profit under the prevailing price levels."

Now, that was last winter. Since then, we have had the drouth. We have had a small corn crop, and we have had poor pastures, in some parts of the country.

So when I saw Dr. McDowell the other day, I said, "Well, how about it now? I see that some folks are advocating cutting down on rations---in order that dairy herds may be carried through intact until more favorable times. What do you think?

"Well," he replied, "I think that may be good advice for farmers who have herds of exceptional breeding. But I do not think it is good advice for the ordinary dairy farmer, who owns an average herd of cows. If close culling was

good for what ailed us last winter, it seems to me that it ought to be even better for us now. It seems to me that we need to cull even more closely than we did then. Because, we have to meet now not only relatively low prices, but a shortage of feed as well. To meet both of these, and still carry the herd at a profit, I consider drastic culling a real necessity in average herds. It is only in herds of VERY high-producing cows that we can recommend no culling.

"Why cut down on rations?" he asked. "If you do that, you'll be cutting down on production, and consequently profits. Why take this course when by culling out the low producers, you can save feed just the same, and at the same time INCREASE profits?"

At this point Dr. McDowell drew from his desk that big, black Book of a Hundred- and One Tables. I've told you about it before. This is a really fascinating volume of figures, records, and facts on dairying and dairy cows. Hundreds of thousands of cows in dairy herd-improvement associations all over the United States have contributed to its pages.

Dr. McDowell thumbed through it for a moment. And then he said- "Notice these figures. You'll note that we have studied the records of hundreds of thousands of cows in thousands of herds. And we have found that culling out the lowest-producing 10 per cent of the cows in the average dairy herd-improvement association herd sends not a single profitable cow to the butcher. As a matter of fact, in a good many cases, culling the lowest 10 per cent from PUREBRED herds would send very few profitable cows to the butcher. The figures also tell us that culling 20 per cent of the cows from the average herd will ordinarily result in increasing net income."

Now, I'm afraid my time will not permit me to bring you more than 1 or 2 stories from the Book of a Hundred-and-One Tales, to illustrate these statements. But you may rest assured that the records are there, in black and white, to back them up.

For example. In one study of culling they took the records of more than 10,000 purebred cows of one particular breed. The average butterfat production of these cows was 330 pounds a year. The average income over cost of feed was \$136. Then the lowest 10 per cent was culled out. This resulted in removing cows whose average production was 178 pounds and whose average return over feed cost was \$53.

Was it worthwhile to keep these cows for a return of \$53 a year? Dr. McDowell thinks not, especially since it cost \$73 apiece to feed them. A good rule in culling, he says, is to cull out cows whose income over cost of feed does not equal the cost of feed. In this case the cows fell \$20 short, on the average.

"Certainly the owners of such herds would be better off if they would let the butcher have the lowest-producing 10 per cent," Dr. McDowell went on. "Sending these cows to the block had a decided effect, not only in increasing the average production, but in increasing average income over feed cost. Culling out the lowest 10 per cent raised the average production of these purebreds from 330 pounds to 347 pounds, and the net income from \$136 to \$144 per cow."

And now here's one MORE story from the Book---and, by the way, these are the very latest figures compiled on the relation between production and income.

Briefly, this is the story the figures tell:

Cows that produced 2,000 pounds of milk a year per cow, ate \$2.06 worth of feed for each 100 pounds of milk they produced.

Cows producing SIX thousand pounds of milk, or three times as much, ate ONE dollar and one cent's worth of feed for each 100 pounds.

Cows producing TEN thousand pounds ate only 80 cents worth of feed for each 100 pounds of milk.

In other words, the 10,000 pound cow produces milk for her owner at considerably less than half what it costs the owner of the 2,000 pound cow per hundred pounds. The figures on butterfat are very similar.

Now, all of this leads to a conclusion which I think will interest you. Dr. McDowell explains that the tabulations made so far do not exactly PROVE this, but they point to it very strongly. They indicate that a man with a herd whose average butterfat production is 350 pounds per cow per year can make more money in most parts of the country,---when buying all of his feed, than another man who raises all of his feed himself but whose herd averages only 200 pounds.

"Of course, we aren't recommending that any farmer buy all of his feed, not by any means," Dr. McDowell explains. "But the point is this: In years like the present one, with feed scarce and high-priced---and dairy products low in price---it is quite possible for owners of VERY high-producing herds to purchase a large part of their feed and still get by with a fair profit."

"Let's remember that in normal years, regardless of production, dairymen usually find it best to raise all of their own roughages and part of their concentrates.

"But let's also remember that this is not a normal year. Many farmers will have to buy some feed which they would ordinarily raise themselves. The dairy farmer with an average herd may find it advisable this year to cull his herd very closely, and then buy enough feed to supplement that which he was able to grow in spite of the drouth.

"It seems to me that the owner of a low-producing herd has no choice. He must send his lowest-producers to the butcher. Else he will find himself working for nothing---or perhaps less than nothing."

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ANNOUNCEMENT: Your Farm Reporter has asked me to call your attention to two bulletins in connection with his report today. One is called "Dairy Herd Improvement," Farmers' Bulletin No. 1532-F; and the other is "Feeding Dairy Cows," Farmers' Bulletin No. 1626-F. You can get copies of these bulletins, as long as the supply lasts, by writing either to Station _____ or to the U. S. Department of Agriculture in Washington, D. C.

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1. The first part of the paper is devoted to a general discussion of the problem.

2. In the second part, we shall consider the case of a single particle.

3. The third part is devoted to the case of a system of particles.

4. In the fourth part, we shall consider the case of a continuous medium.

5. The fifth part is devoted to the case of a system of continuous media.

6. In the sixth part, we shall consider the case of a system of particles and continuous media.

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YOUR FARM REPORTER AT WASHINGTON

Monday, October 6, 1930

NOT FOR PUBLICATION

Speaking Time: 10 Minutes.

All Regions.

HANDLING LIVESTOCK DURING DROUGHTY SEASONS.

OPENING ANNOUNCEMENT: Once more Your Washington Farm Reporter is on the air. His subject for to-day is---HANDLING LIVESTOCK DURING DROUGHTY SEASONS. This is one of the regular Farm Reporter programs broadcast from Station _____ in cooperation with the United States Department of Agriculture. All right, Mr. Reporter, you're on the air.

---oOo---

Folks, I want to talk to you to-day about handling livestock both during and after a drought. What I am going to say applies, I hope, not only to this year's unusual drought, but to an unexpected and severe drought at any season and in any section of the country.

It looks as if this year's corn crop will be six or seven HUNDRED MILLION bushels short of the five-year average, and the hay crop from ten to fifteen million tons short.

Now, what's the livestock farmer going to do? Let's take a farmer with 160 acres of land, 8 head of horses, 20 beef cattle, 6 dairy cattle, 25 hogs, 15 sheep, and 200 laying hens. Last spring he made plans to produce practically enough feed to carry his livestock through the winter. Most of the crops were actually planted, but the drought "burned them up" or cut the yield down to a point where he can't stretch his feed to make it keep his stock until next spring's pasture and another year's harvest of hay and grain. He has little or no money to buy feed with, even his credit burned up with his crops during the drought.

"What's this farmer going to do with his livestock this winter?" That's the question I asked William Jackson in the Animal Husbandry Division of Uncle Sam's Bureau of Animal Industry.

"That will depend," said Jackson, "on many factors. It will depend on the damage to his main feed crops, on the amount of wheat or other grains not usually fed which he has on hand, on the amount of money he has to spend for emergency feed, on the luck he has at getting good fall rains for his pastures, and, finally, on the farmer himself. The drought has emphasized, as nothing else could, that each farm and the man who manages it is an individual problem not comparable, exactly, with any other farm and farmer."

I asked him to explain further.

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"All/right," he said. "Suppose you and I own adjoining farms. You have a herd of high-producing dairy cows and are producing market milk. You are in the habit, we will say, of buying three-fourths of your feed each year, in a normal year. Along comes a drought and cuts down the feed-crop production of your farm just 50 per cent. Instead of buying 75 per cent of your feed this year you will now have to buy about 85 per cent or 90 per cent, only 10 or 15 per cent more.

"I am a grain farmer. I keep but few livestock, maybe a couple cows for milk for my family, a flock of hens for egg money for the madam, and a few sheep to keep my fence rows clean. Possibly two or three brood sows. We shall assume that I sell three-fourths of the feed I produce. The drought also cuts my crop in half. I still have about three-eighths of a normal crop to sell, get a better price for it than I would have, and my livestock and poultry have ample feed to carry through the winter.

"But," said Jackson, "over there across the creek is a neighbor of ours who usually produced just enough crops to feed his animals until another year and another crop of grass and grain. He's in the shape of the man whose inventory of livestock you enumerated a while ago. That man, if he gets but half a crop, is going to have to do some careful managing."

"What are some of the ways in which he can get by until next year," I asked Jackson, "if he hasn't much money to buy feed?"

Pulling a 12-page circular from his desk, Jackson turned to me and countered with another question.

"How much of the good hay grown each year in the United States do you suppose, Mr. Reporter, is actually fed to livestock?"

I guessed about 90 per cent.

"That's not a bad estimate," he said. "The figure is somewhere around 95 per cent. In other words, not much of it is allowed to go to waste. Farmers are learning that good-quality alfalfa hay, for example, is worth, pound for pound, about half as much or even two-thirds as much as the high-priced grains for livestock feed. In fact, if the hay is good, and it is fed right, a ton of hay for many classes of animals will save nearly its weight in grain, if supplemented with some grain or other concentrate.

"And now, Mr. Reporter," Jackson went on, "what proportion of the straws and stovers produced in this country do you suppose are fed to livestock?"

I had just made such a good guess that I wanted to keep my batting average high, so I decided to ask Jackson a question or two before I answered.

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"First, tell me this," I asked. "Aren't good, bright oat straw and corn stover about as good feed as the poorer grades of clover hay and probably better than timothy hay for cattle and sheep?"

"You're right," he said. "They are."

"Then my guess would be that farmers also feed about all the straws and stovers they produce."

"No," he replied. "The figure is somewhere in the neighborhood of 25 per cent. More than three-fourths of this class of feed is wasted. Moreover it is often allowed to waste away and lose palatability and feed nutrients through being poorly stacked and exposed to sun and rain. About 35 million tons of oat straw are produced in this country and but 10 million tons of it fed to stock."

He then opened the circular which he had before him - Circular 140, entitled "Handling Livestock During Drought," just issued by the Department - and on page 6 showed me a report of an experiment in which the Ohio station found soybean straw, fed with shelled corn and linseed meal to sheep, worth one-third as much as good-quality clover or alfalfa hay.

The circular contains directions for the best methods of feeding these rough feeds which many farmers are accustomed to wasting. It also contains directions for substituting wheat and other small grains for the short corn crop, with representative rations for the various classes of livestock.

At the present price of wheat, a hog farmer, for example, can put a hundred pounds of pork on his hogs something like a dollar and a half cheaper with ground wheat and tankage than he can with corn and tankage.

Right here I want to emphasize one big point in the 12-page circular prepared by Messrs. Sheets and Jackson. It's about disposing of livestock when feed is short. Of course, it's better to sell animals than to have them starve, but livestock owners ought to look into the future before selling good breeding stock. It takes several years to grow good animals. When they are gone, it's not always easy to replace them with other animals.

Suppose that the 160-acre farmer we mentioned a moment ago finds after careful thought that it's necessary for him to sell part of his livestock. What will he sell?

Well, first, intelligent culling is always in order. If a farmer has more animals than he can feed and finds it necessary to dispose of some of them, the culls ought to go first, and foundation breeding stock should be the very last to go. In between these two extremes the individual farmer will have to make his own decision.

I am quoting from the circular, "Growing stock and pregnant animals should be kept on adequate rations with provision for normal growth. Loss of weight in other mature animals, however, need not be viewed with alarm.

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Livestock fluctuates in weight fully as much in proportion as human beings. It has been found to be sound management practice to permit cattle and sheep, for example, to draw rather heavily at times upon reserves of fat stored during seasons of abundant feed and pasture.

Low-grade feeds can be utilized during droughts and if an abundance of water can be had that will help a great deal. Finally, if the farmer is compelled to sell some of his livestock-----the culls should go first, the very old and the very poor animals next, and the animals in good condition retained as long as possible, and the foundation breeding stock held to the very last.

I could go on for an hour talking to you about the valuable suggestions contained in this 12-page circular, but my time is about up.

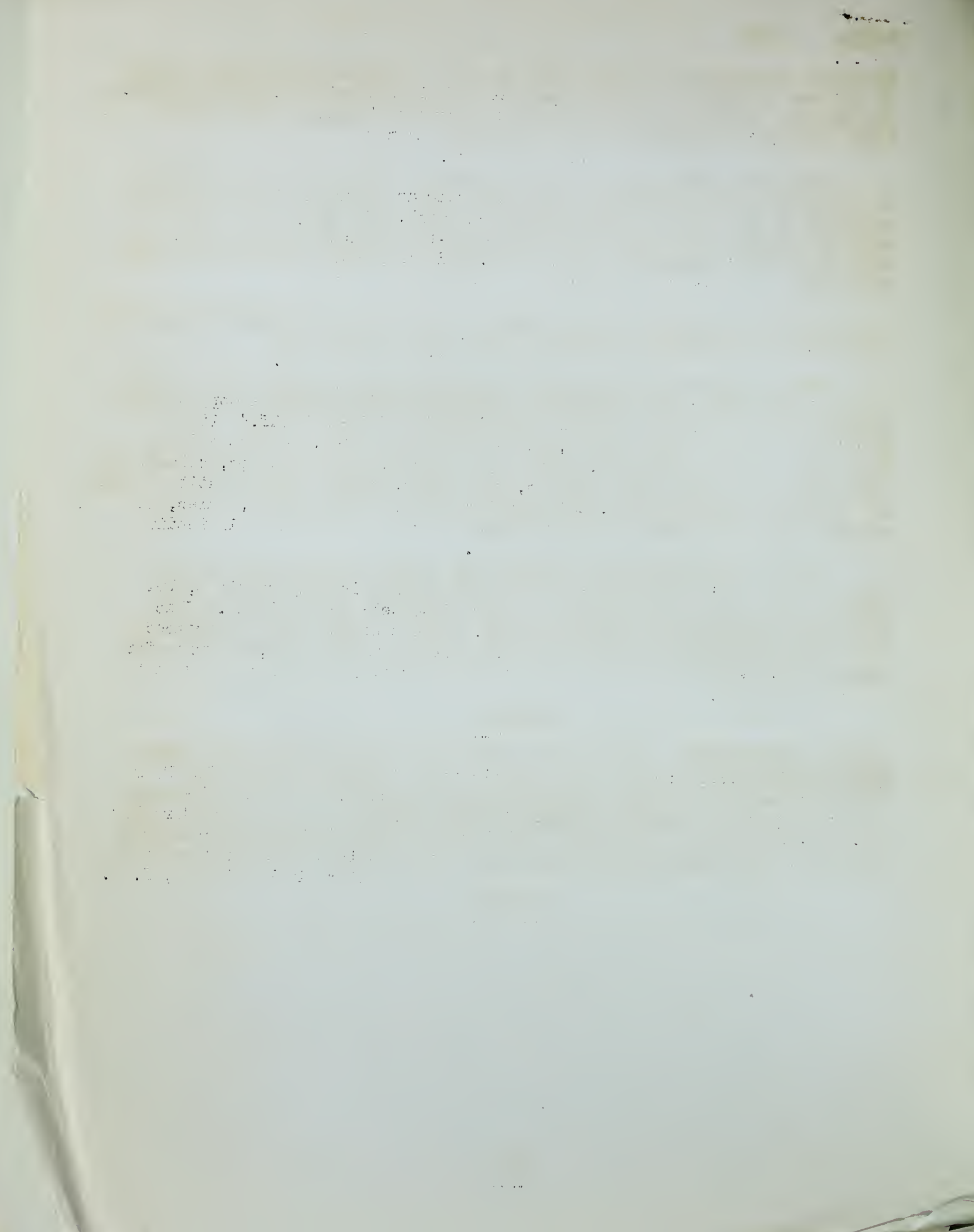
Every farmer and every livestock raiser ought to have a copy of this Circular No. 140-C, called "HANDLING LIVESTOCK DURING DROUGHT." It contains feeding rations, feeding tables, feed-substitute tables, and has a lot to say about emergency pastures, emergency hay crops, soiling crops, silage, emergency silos, straws and stovers, root crops, water, grain substitutes for corn, wheat for beef cattle, dairy cattle, hogs, sheep, horses, mules, poultry, and finally winds up with a few timely pointers on the economy in feeding animals during and after droughty seasons.

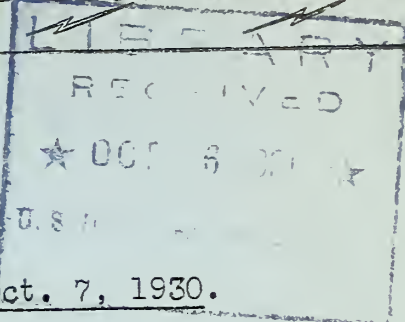
This year's drought has already been broken in many sections, but some of you may need more feed or be forced to sell some animals. This circular may help you decide what to do. Others of you may have escaped this year's drought, but another one may catch you next year, so write for this brand-new bulletin and put it in your library and be prepared when the emergencies come.

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CLOSING ANNOUNCEMENT: You have been listening to one of the regular Farm Reporter programs broadcast from Station _____ in cooperation with the Federal Department of Agriculture. The Reporter mentioned the new Circular No. 140-C, called "HANDLING LIVESTOCK DURING DROUGHT." You may have a copy of that publication by directing your request to this station or by writing directly to the United States Department of Agriculture in Washington, D. C.

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YOUR FARM REPORTER AT WASHINGTON.

Tuesday, Oct. 7, 1930.

Crops and Soils Interview No. 53: Marginal Land.

ANNOUNCEMENT: Here recently we've heard a lot of talk about "marginal land". We've asked your farm reporter at Washington to find out from some of the experts at the United States Department of Agriculture, just what "marginal land" is ---- Well, Mr. Reporter, what do they mean by "marginal land?" -----

"Marginal land" used to mean land it doesn't pay to use. Land it pays to use was classed as above margin. Land you actually lose money on was classed as below margin.

But from what Dr. L. C. Gray tells me there is more to this question of "marginal land" than is dreamt of in any simple dollars and cents philosophy. Dr. Gray is in charge of the land economics division of the United States Department of Agriculture. He points out that as individuals and as a nation there is a big need for us to make a more thorough study of the use of our land, and where our "marginal" and "below margin" lands lie. Lands may be below margin for crops, but above margin for forest and pasture. They may be below margin under one system of land management and above under some other system.

What has happened in the past ten years shows how land shifts from the paying to the non-paying side and the other way around. Incidentally, those shifts show why this question of "marginal land" has become so important.

Dr. Gray says that in the last ten years enormous areas of semi-arid land in the United States, in Canada, in Australia, in Argentina, and in South Africa have been brought into cultivation. That land was once considered below margin; in fact, practically worthless, for farming. The combine, and the tractor, and power machinery generally, have made that land pay. Huge crops of grain are now raised on some of those formerly use-less lands. The yields to the acre may be low, but with the large acreage and lower costs, those lands now produce big crops more cheaply than most of the older areas.

On the other hand, as that new land has risen well above margin, much of the land in some of the older sections has sunk below margin. Farms have been abandoned. Tax delinquency has increased. Lands have gone begging. Many farmers find it harder to get loans. Loan companies have tightened up on many areas. In some sections, which a few years back were considered well above margin, the loan companies have ceased to operate.

As Dr. Gray sees it, many a farmer in our older regions lacks the perspective to judge whether his farm has ceased to pay for the time being or permanently. He doesn't know the world outlook caused by the big shifts in farming in the last few years. He is likely to cling to land where there is no chance for things to get better.

For that reason, it is highly important that we know what land is marginal and below margin, and what is above. Many farmers not only cling to the land, but cling to the same set ways of managing the land which may have been profitable once, but are not now. That land may be marginal, and again it may not. Under a more economical system of management the land might more than pay its way. For instance, the old government land policy based on the idea that 160 acres or 320 acres was a fair size for a farm did not work well in many parts of the West. That was too small a unit to farm economically under the conditions. By the collection of a number of such units into one farm with large-scale farming methods, however, ~~such lands~~ were changed in many cases from marginal to profitable holdings.

In a general way, we already know that there are certain sections of our country where there is much land well below margin, Dr. Gray says. There are certain rough areas, where it is quite certain the land is unfit for profitable farming and should be put in trees. There are other sections, where the land is closer to the margin, and where the question of the best use is less clear cut. There is likely to be some marginal land in every part of the country.

In the Appalachians, and the Ozarks, and the Rockies, there is much marginal and below margin land. In the Great Plains, it is largely a question as to how far you can push out on the rainfall margin. There are many millions of acres which used to be considered below margin, which are ^{now} clearly above margin.

In our southern and Gulf Coast areas there are cut-over lands below margin because they are too wet and full of stumps. The cost of pulling the stumps make such land unprofitable. There are also areas of rough land in the Piedmont section of the South so damaged by erosion and loss of fertility that they are being abandoned and are going back to brush. Extensive areas in parts of New Hampshire, Vermont and southern New York are definitely classed as marginal. Another extensive area is the "Highland Rim" of southern Indiana, southern Illinois, and parts of western and southern Kentucky and of Tennessee.

We know about such areas in a general way, but even our economists are not prepared to say whether individual farms even in those areas are above or below margin.

They may know that from the big business man's point of view, certain farm lands do not pay reasonably profitable returns on the capital and labor which goes into making the crops. Often, however, Dr. Gray points out, the way out is not so clear. There are human factors to be considered. In many of the marginal communities, the people are not highly commercial. They may be using land not counted as the paying kind, but they consider farming a way of living. Born on the land, with their capital and labor invested in it, it may not be feasible for them to transfer to something else. They have experience in farming, but nothing else.

In some sections, farmers of marginal land have managed to piece out their farm living by part time work in mining and lumbering and other industries. In other sections, even that is not practical for lack of other industries to turn to.

And it is not only the man who has marginal lands who is concerned. From the standpoint of crop surpluses, Dr. Gray says, it is unfortunate for farmers generally to have land occupied when it does not pay the individual farmer, but at the same time adds to the burden of over-production. Then, too, it costs money to maintain schools, and provide roads for people scattered around sparsely over poor lands, and the general public, which helps maintain them, is vitally concerned with the problem of whether land is needed for farming or had better be put back to forest to increase our dwindling timber supply.

To give an accurate detailed answer as to exactly what lands are marginal and what are not, will take thorough study by experts of the many complex social and economic conditions involved. In the meantime, Dr. Gray says it is highly important that farmers in all parts of the country get the agricultural outlook reports and other farm information through the State and Federal extension forces. In that way, they may become acquainted with the general world situation and the national situation, and be better prepared to face this great "marginal land" question as it applies to each man as a farmer and as a citizen.

ANNOUNCEMENT: You have just heard a brief discussion of "marginal lands" as outlined to your farm reporter at Washington, by Dr. L. C. Gray, land economist of the United States Department of Agriculture.

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In 3 yrs

YOUR FARM REPORTER AT WASHINGTON

Wednesday, October 8, 1930

NOT FOR PUBLICATION

Speaking Time: 10 minutes

Poultry Interview No. 56: EQUIPMENT FOR THE MODERN POULTRY HOUSE

ANNOUNCEMENT: Two weeks ago today, at this same hour, Your Farm Reporter at Washington talked about poultry houses which keep hens comfortable in winter. We suggested to him that he follow this up with a report on modern, poultry-house equipment. Well, he's here today with this report. And now I'm going to ask him to step up and tell you about it.

When I was a boy---if you'll pardon my personal reminiscing---one of my steady jobs was taking care of the chickens. We kept our small flock in an old red barn, which was shared also by a couple of horses. It had a dirt floor. The hens and pullets used to scratch around in the barnyard, which, as I remember it, was just plain dirt, too, with no sign of grass.

I remember that I would take out the kitchen scraps, and dump them on the ground in the entryway of the barn. And how well I remember drawing water from the old well, and carrying it across lots to the barn. Once in a while I would clean the water troughs.

I don't recall that anyone ever suggested such devices as dropping boards. Artificial lighting, glass substitutes, and such, were of course unheard of. The floor---or rather, the ground---served as a feed hopper. In short, our equipment consisted mainly of a roost, a half-dozen nests, and two or three wooden watering troughs.

Well, I won't dwell on this picture any longer, because you have a memory too. But how different it is today, in that very same spot. The old red barn is no more. It fell victim years ago to a mild windstorm. But I was there on a visit recently and I found a brand new poultry house on the exact site.

It was an ordinary, modern, poultry house, but what a contrast. I noticed on a brief tour of inspection, the following equipment: mash hoppers, of the open-reel box type; galvanized water vessels, set up on wire platforms above the floor; electric lights; glass substitutes in the windows; and a rack for feeding alfalfa or soybean hay. Not to mention dropping boards, removable nests, and other equipment which has been standard for a longer time.

Well, we all know that times have changed, but maybe it takes something like this, to make you realize how much it has changed. The old red barn is a pleasant memory, like the little red schoolhouse, but I doubt that it would be so pleasant, in actuality, today.

But I started out to tell you about my interview with Mr. A. R. Lee, Department of Agriculture poultry husbandman. We got to chatting about some of the newer developments, first. I asked him about artificial lights.

"Well," he said, "Artificial lighting has come to be practically essential, on all commercial poultry farms. Without question, lights increase the proportion of eggs laid in fall and winter, and that's when egg prices are highest. For this reason, they are giving good results on many ordinary farms, as well as on commercial poultry farms."

As for glass substitutes, Mr. Lee reports that they are getting to be pretty common. When chickens are confined to the house during fall and winter, some substitute for glass is very valuable, to allow the health-giving rays of the sun to penetrate into the house.

The arrangement of windows is also very important in this respect, according to Mr. Lee; the idea being to get the greatest amount of direct sunlight on the floor of the house.

But now, how about such new contrivances as automatic watering devices, dry-mash hoppers, and so on?

"Well, taking your questions one at a time," Mr. Lee replied, "I can say that automatic waterers are being used to quite an extent nowadays, in large poultry houses,---especially in sections where winters are fairly mild. The automatic system is most useful on range, I suppose, where the flow of water can be regulated by a float---and where some simple provision can be made to handle overflow and drainage.

"Speaking of watering devices for general use, either galvanized pails or large pans make good containers. But they ought to be set up about two feet above the floor of the pen on slat or wire platforms, high enough so that floor litter can't be scratched into them. Many poultrymen also put a wire or wood frame, or a metal cone, over open water pans to prevent the hens from getting into the water.

"Probably it is as important as anything, to see that the space around water containers is kept dry. Damp litter is a bad thing in the poultry house. Dampness is a breeder of colds and roup, and it lowers resistance of fowls to other diseases.

"Now, answering that question about mash hoppers, I'd say the requirements of a good mash hopper are the following: It should prevent waste, keep the mash clean, be easy to clean and to fill, and should provide laying hens with a constant supply of mash. If your hopper meets these requirements, it ought to be a good one. The large wall hopper has heretofore been the most popular type, but the open box hopper seems to be replacing it in popularity. The open hopper, you know, is built like an open box, about 5 inches deep and 10 inches wide; and it has a revolving rod on top to keep hens from walking or roosting in the mash.

"You'll find plans for the dry-mash box hopper, by the way, in Farmers' Bulletin No. 1554-F, called "Poultry Houses and Fixtures."

I broke in to ask Mr. Lee if the old open-trough feeder had gone out of style.

"Not at all," he said, "It's still desirable for moistfeeds, such as moist mash, condensed buttermilk, green feed, and the like. It's a good idea to install separate hoppers or sections of hoppers for oyster shell and limestone grit, and perhaps for charcoal."

"Now how about that rack for green feed?" I asked. "Is it practical?"

"It seems to me it ought to be very practical, especially this year when green feed is apt to be scarce," he said. "Either alfalfa hay or soybean hay will make an excellent addition to the ration, if you can get one or the other. It is probably fed to best advantage in a cylindrical frame, made of poultry netting, about one foot in diameter and three feet high. The frame may either be set on the floor or fastened to the side wall."

I asked about roosts. "There isn't much to be said about roosts," he replied, "except this: Remember that in large houses you need a partition every 20 feet on roosts, to keep chickens in small groups, and to prevent drafts at night. Roosts need more frequent divisions than the house itself, which required partitions every 40 to 50 feet for best results."

"I would like to say a word about dropping boards though," he went on, "Not all poultry raisers use them, but they are so essential to sanitation that I consider them very necessary fixtures. There's a tendency now to make movable dropping boards, built away from the rear wall of the house. Some poultrymen are also using wire floors built in small squares which can be taken up and cleaned individually."

"If you're using ordinary dropping boards, it is advisable to nail 1-1/2-inch mesh wire on the under part of the roosts. This prevents the hens from getting on the dropping boards and scratching."

"Now as to nests, I guess the main thing to emphasize is cleanliness. The thing to remember is that clean eggs bring higher prices. First, build nests that are easy to clean, and then clean them frequently."

Now folks, I've given you the main ideas that I gathered from my interview with Mr. Lee. If you want details on poultry equipment write for that bulletin on "Poultry Houses and Fixtures." Meanwhile, I'll be saying good-day. See you tomorrow.

ANNOUNCEMENT: The number of that bulletin Your Farm Reporter mentioned is Farmers' Bulletin No. 1554-F. Write for it either to Station _____ or to the U. S. Department of Agriculture in Washington.

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★ OCT 6 1930

U. S. Department of Agriculture

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YOUR FARM REPORTER AT WASHINGTON.

RELEASE: Thursday, October 9, 1930.

Federal Farm Board Interview No. 55: All Wool!

ANNOUNCEMENT: What are the farmers' co-ops doing? Your farm reporter at Washington has been finding out from specialists of the Federal Farm Board. Today he is going to report to us about recent developments in co-op marketing of wool. Farmers in general, as well as all those of them who grow wool, will find some satisfaction in this report ----- Well, Mr. Reporter? -----

The new National Wool Marketing Corporation has already done much. The prospects are that next year it will do even more.

Here is the whole farmers' co-operative wonder story in wool, as Mr. J. M. Coon, of the wool division of the Federal Farm Board wove it to me, in facts and figures.

This, its first season in the market, the National Wool Marketing Corporation, is handling one hundred and twenty-five million pounds of wool and mohair.

That includes about thirty-five to forty per cent of all the wool produced in these United States, and between eighty-five and ninety per cent of the mohair.

Texas alone shipped thirty-two million pounds. Montana was second, and Utah third. Eighty per cent of the entire production of Colorado was shipped by co-operative growers to our new National. South Dakota shipped sixty-five per cent of her clip.

The National now has twenty-six member associations, all owned and controlled by the wool growers themselves. Most of those twenty-six are new agencies, but the set-up also includes all but one of the old co-ops.

As you know, to qualify as a member of the National Wool Marketing Corporation, a cooperative association has to have at least five hundred thousand pounds of wool signed up. The growers sign agreements with their local association, and the local signs an agreement with the National.

This year such states as Indiana, Wisconsin, Illinois, New York, and Kentucky had little organizations which did not have enough wool to get in as individual members of the National Wool Marketing Corporation.

The co-ops in those States were taking care of the formation of the Central Wool Marketing Corporation, at Boston. However, Mr. Coon tells me it is expected that the sign up in those States will be big enough next year for each of them to set up as full-fledged member organizations of the National.

The officers of the National estimate that next year it will handle more than one hundred and fifty million pounds of wool and mohair, as compared to one hundred and twenty-five million pounds this first season.

You realize what progress has been made when you remember that before the Federal Farm Board encouraged the growers to establish this new National, a few months back, the co-ops were handling only about ten per cent of our total production, and were fast losing ground.

Growers in the local co-op membership of the National have the privilege of pulling out of their association during a withdrawal period from July 15 to 31st. Very few withdrew this past July. Mr. Coon says that one co-op in Texas which handles better than two million pounds, had just one withdrawal.

Through the National Wool Marketing Corporation, the Federal Intermediate Credit Bank advanced the growers 65 per cent of the value of the wool at the time of delivery. The Federal Farm Board advanced an additional 25 per cent; making a 90 per cent advance to the wool growers. Advance ranged from 14 to 26 cents, according to the quality of the wool, and were only made when there was a bill-of-lading or a warehouse receipt for the wool.

In the West, the advances to growers, Mr. Coon figures, were equal to more than they would have received from the buyers. A good part of the wool growers consider the wool already sold at the 90 per cent advance.

Mr. Coon says that a good many growers have told him that the presence of the National Wool Marketing Corporation in the market has raised their price of wool from five to eight cents, a pound. In Wisconsin, wool that was selling for 15 cents when the National came into the field advanced to 25 cents.

And not only are the co-op members feeling more confidence, but the mills are becoming more favorable, and the National is continually making sales of the wool it has received from its members. The mills feel that the National is having a big effect in stabilizing the market, and the dealers are becoming a lot more friendly.

Many of the dealers and mill men were hostile at first for fear the National might upset the market by dumping or might try to hold up the mills on prices. They have found that it is the policy of the National to prevent dumping. Neither is the National trying to hold up the mills.

As Mr. Coon explains it, it is impossible for any growers' organization to set arbitrary prices. The aim is eventually to get for the growers a price comparable to the foreign price plus the tariff. We don't quite get that yet, but that is the aim.

Wool produced in this country, he says, is just as good as that produced abroad. But the foreign wools are put up better. The foreign producers ship just the body of the fleece. They can't afford to pay duty on the low grade wool, so they take off the skirts, the belly wool and the tag wool before they ship. The wool is practically sorted, and the off sorts sold to mills at home.

We sell our wools without sorting or skirting of the fleeces.

Due solely to its method of preparation for market, the foreign wools command a price about ten per cent above that of the same quality wool unsorted.

The aim of the National is to get for our growers a price equal to the foreign price plus our tariff, and less the conversion costs. That is less the ten per cent which represents about the difference in value between the foreign sorted wool and our unsorted wool as it is received at our mills.

Obviously, our growers can not set the price above the foreign price plus the tariff, Mr. Coon says.

Greater confidence of mills, dealers, and grower members in the new National Wool Marketing Corporation, Mr. Coon points out, are the best signs of a yet more successful service next year.

ANNOUNCEMENT: You have just heard developments in cooperative wool marketing as outlined by Mr. J. M. Coon, of the wool division of the Federal Farm Board. This time each week, this Station ----- in cooperation with the Farm Board and the United States Department of Agriculture presents such developments, as part of our regular series from your farm reporter at Washington.



★ OCT 6 1930 ★

Friday, October 10, 1930

1.9
In 3 yd
YOUR FARM REPORTER AT WASHINGTON

NOT FOR PUBLICATION

Speaking Time: 10 Minutes.

Dairy Interview No. 56: COOPERATING TO IMPROVE QUALITY OF MILK

ANNOUNCEMENT: This is again Your Farm Reporter at Washington's day with dairymen. You may remember that last spring Your Reporter described for you a national program of milk improvement, to be a cooperative enterprise between federal and state workers, dairy farmers, and most other agencies interested in dairying. Today he's going to tell us something about how this plan is working out. All right, Mr. Reporter....

Well, here I am, back on that subject of high quality milk, again. And from the looks of things, you'll be hearing more and more on this subject from now on—not from me, necessarily, but from all sides. Everything—market conditions, consumer demand, efficient methods, and so on—seem to be conspiring to bring the question of high quality into the limelight.

Therefore, I'm not merely like the small boy, who pestered the old station agent with the question, "When does the next train come in?"

"Why, you little rascal, I've already told you five times that it comes in at 4:44," said the agent.

"I know it," replied the boy, "But I like to see your whiskers wobble, when you say 4:44."

Now, none of my Department of Agriculture friends, who are interested in improving milk quality, have whiskers. So don't lay my frequent conversation with them to that. If I report rather frequently on this subject, just remember that it's because quality is of such great importance.

I was talking this week with Mr. Ernest Kelly, who is chief of the market milk investigations in the Bureau of Dairy Industry; and Mr. J. B. Parker, who is the field representative of the Bureau in the Eastern states. They were telling me about how this cooperative plan of milk improvement had worked out in the state of Maine.

Maine adopted this quality improvement program just a little more than a year ago. Mr. Parker met in Boston with the Maine State Dairy Specialist and representatives of various agencies interested in dairy production and distribution including the state board of health and the state Department of Agriculture. It was agreed at this meeting that there was need for improvement; and preliminary plans were made.

Then the improvement campaign was put under way at once. A certain area in the state, where dairying is important, was selected for the first year's work. The first thing was to make a survey, which included examination of milk brought in by farmers to shipping stations. The methylene blue and sediment tests were used to indicate sanitary quality.

This was last fall. During the winter and spring about 70 meetings were held, throughout this territory. State dairy extension specialists met with farmers at these gatherings, to go over methods of improving milk quality, and to consider the importance of quality in their marketing.

Then a few weeks ago, one year from the date of the preliminary survey, there was a follow-up survey. The results of this survey have just been tabulated by Mr. Parker and here is the story they tell:

In the fall of 1929 only 39.8 of all milk received at the creameries in this area, qualified as First grade as classified by the reduction test. This fall, 57 per cent was top grade milk----an increase of more than 17 per cent. There was a corresponding decrease in the three lower grades: 28.5 per cent was Grade 2 milk as compared to 38.4 per cent in 1929; 11.8 Grade 3, as compared to 14.7; and only 2.7 Grade 4, as against 7.1 per cent last year.

Now, this is what I'd call getting results. Maine dairymen in this region have reason to be proud of that year's work. The milk brought in to collecting plants shows material improvement, in the words of Mr. Kelly, the chief market milk specialist for the Department of Agriculture. And remember, he says that this is the result of just one year's cooperation. The real effort to produce high quality milk by this plan is just beginning.

This quality milk program, of course, isn't confined to Maine. Maine was the first state to take it up on this organized area basis as an educational extension project, and is the first to complete a year's work. But the same program is now going forward in a number of other states.

In case you aren't familiar with the plan, let me repeat the brief outline that I passed on to you last spring, from Mr. Kelly. As he explains it, the State Colleges take the responsibility for organizing the program, with the support and cooperation of dairymen and all others interested in dairying. The State College extension service will survey the situation in its state and then pick out a particular area to start in. This will be a sort of demonstration area of, say, 1, 2 or 3 counties. Then there'll be an organization meeting in this area. The Department of Agriculture will send a market milk specialist to this meeting to give lectures and demonstrations, answer questions, and make suggestions. He will demonstrate, among other things, the use of the methylene blue test and the sediment test.

The main function of the U.S. Department of Agriculture, in this program, is to present the latest information on best methods for particular areas. Then the extension services, dairy farmers, State Departments of Agriculture, and other agencies, will go ahead to see that this information is made available to all producers of milk.

Afterward, the Department plans to study the results obtained in various states. They want to keep track of the extent of improvement, and to look out for different and better methods developed by state specialists and by farmers. In this way, we'll get an excellent check-up on the differences in quality resulting from different practices.

Both Mr. Kelly and Mr. Parker emphasize the fact that improvement in quality of milk is a problem for the dairy industry as a whole, and requires the cooperation of all agencies.

Solving the problem depends upon cooperation. Among the cooperators in Maine were dairy farmers themselves, the U. S. Department of Agriculture, the State College and extension specialists, milk plant managers, the State Department of Agriculture, and the State Board of Health, and various dairy organizations.

Naturally, the MAIN cog in any such list, is the producer. So, in winding up today let me read over a list of bulletins on the production of clean milk, in which you may find valuable suggestions. The Department of Agriculture has publications on practically every step necessary to producing high quality milk.

First, "Production of Clean Milk," Farmers' Bulletin No. 602-F; Then there are the following: "Washing and Sterilizing Milk Utensils," Farmers' Bulletin No. 1473-F; "Cooling Milk and Cream on the Farm," Farmers' Bulletin No. 976-F; "Improved Sanitation in Milk Production," Leaflet No. 3-L; and "Preventing Feed Flavors and Odors in Milk," Leaflet No. 25-L.

ANNOUNCEMENT: You have been listening to Your Farm Reporter at Washington, who reported today on a national program of milk improvement. If you want copies of the bulletins he mentioned, simply write either to Station _____ or to the U. S. Department of Agriculture in Washington, and copies will be sent to you free, as long as the supply lasts.

★ OCT 10 1930 ★

1.9
In 340
YOUR FARM REPORTER AT WASHINGTON.

Monday, October 13, 1930

NOT FOR PUBLICATION

Speaking Time: 10 Minutes.

All Regions.

LIVESTOCK SHIPPING FEVER

OPENING ANNOUNCEMENT: Every Monday Your Washington Farm Reporter brings us a timely message from livestock specialists in the United States Department of Agriculture. The subject for to-day is--LIVESTOCK SHIPPING FEVER, and you will now hear from Your Washington Farm Reporter on that subject.

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Folks, I want to talk to you today about a livestock disease that may be rather troublesome and costly this fall and winter as a result of the drought and feed shortage. The scientific name of this disease is HEMORRHAGIC SEPTICEMIA, but it is commonly called SHIPPING FEVER.

Shipping fever is a disease that attacks beef cattle, dairy cattle, and even other livestock. It is found throughout the country wherever cattle are kept and causes stockmen much loss every year.

This disease is caused by a little germ, or organism. This germ may be in an animal's system in a dormant stage without causing harm so long as the animal receives good care, proper feeding, and handling. However, when this animal suffers undue exposure, is roughly handled, poorly fed, or managed in such a way as to lower its physical resistance---right then shipping fever germs, already in the system, may get busy. The result is a sick animal.

Dr. S. O. Fladness is in charge of livestock transportation inspection work for the Federal Bureau of Animal Industry. I went to him in search of practical information about this disease we call shipping fever.

"Well," said Dr. Fladness, "to begin with, shipping fever is infectious, communicable or catching, whichever you want to say. In addition to cases in which germs already in the body develop, livestock get this disease by catching it from other animals or by contact with infected pens, yards, bedding and so on.

"If the hardships of travel have lowered their resistance the disease takes hold that much more easily. ANYTHING that lowers the physical vigor of the animal encourages the development of the fever germ if it's in the system, and also makes it harder for the animal to RESIST "catching" the disease in case of exposure to infected animals or premises.



Now, if the feed shortage brought about by drought results in underfed and undernourished animals-----some of these animals may come down with shipping fever, provided the germ is in the system. Or, as stated a moment ago, they may not, in this weakened condition, successfully RESIST "catching" the disease in case they are exposed to infected animals or premises.

I mention this matter folks, not to excite you but simply to call to your attention the facts in the case so that you can safeguard yourself and your stock against this loss.

"Well, Dr. Fladness," I said, "what is the average stockman going to do to prevent his animals from developing shipping fever in case they have the dormant germs in their systems, and what is he going to do to cure the disease if it breaks out?"

"Now, that's the point," was his reply. "Good treatment goes a long way toward solving this shipping-fever problem in livestock. Keep your feeders and stockers in thrifty condition. Look carefully after the comfort and health of the dairy cow wherever she is kept, and remember good treatment is essential to health and vitality of livestock whether you have 5 milk cows or 500 beef animals. Abuse, neglect, and irregularity in feeding and watering all tend to lower the body vitality, and in this weakened condition disease may develop in the animal's system. An ounce of prevention is certainly worth a pound of cure in the case of shipping fever. If you happen to be a little short on cattle feed this fall and winter make up for this as much as you can by housing, watering, and managing the animals in the best possible manner,---so as to maintain vigor and resistance to disease.

"If you are driving cattle to shipping points several miles away, start in plenty of time so you won't have to hurry the animals. Allow them time to rest and provide them with plenty of good water so that they will be rested and in good physical condition when loaded for shipment. See that clean cars are provided for the cattle and that these cars are comfortable under prevailing weather conditions. Naturally a shipper in southern Georgia will need different arrangements from a shipper in central Montana, but neglect and not especially the section of country is the factor to consider in guarding against shipping fever. If the germ is in the animal's system and the animal is abused or neglected in such a way as to lower resistance to disease---then the disease may develop regardless of where the animal is located.

"Keep animals in out of cold rains, cold winds, and keep them dry and comfortable-----be regular with feed, water, and other management problems, and you'll be doing a great deal to prevent shipping fever from developing in your cattle. Even though your livestock feed may be short this winter-----you can still guard against shipping fever by taking especially good care of the animals."

Dr. Fladness says that it is possible to prevent shipping fever with practical certainty by means of proper vaccination with a bacterin or agressin, at least 10 days before the animals are to be shipped.

Now in case the disease actually develops in a herd, the owner should follow the advice of a competent veterinarian. The stage of the sickness will determine what method to follow, and what product to use. Only veterinarians should treat animals affected with diseases such as shipping fever.

Shipping fever is not easily distinguished from other ailments. It is apparent that something is wrong with the animal. It is OFF FEED and all humped up over in one corner of the lot. Something is wrong, all right, but what is it? To find out call a competent veterinarian.

Naturally, good treatment of animals at home on the farm, and proper care and handling in shipping, will greatly reduce the million-dollar loss which results from shipping fever every year. However, if livestock producers will strive to grow strong, vigorous animals and deliver them in good comfortable condition to shipping points, the chances are they will reach destination in first-class shape, because the railroads, commission merchants and public handlers of livestock all are cooperating to cut down this loss from shipping fever which is charged right back to the man producing the animals.

Of course, shipping fever occurs most frequently in the cattle-feeding centers because there are more cattle in those sections and also greater congestion, but according to Dr. Fladness shipping fever is a disease that is likely to bob up any time and any where when susceptible animals are exposed or neglected and their resistance to disease is thereby lowered.

This wound up my interview with Dr. Fladness on the subject of shipping fever. On account of time I have given you just a few of the many points connected with prevention and treatment of this costly disease. If you would like to acquaint yourself better with control measures ask for a copy of Farmers' Bulletin No. 1018-F, called "SHIPPING FEVER OF CATTLE," and Leaflet No. 38-L, called "MAINTAINING THE HEALTH OF LIVESTOCK IN TRANSIT."

Remember that shipping fever often develops when cattle are unduly exposed or neglected and that the disease is also "catching". Therefore, take better care of your animals, especially this winter when feed may be short, and try to build up vigorous, disease-resistant livestock.

---ooOoo---

CLOSING ANNOUNCEMENT: Your Washington Farm Reporter has just told you how to control shipping fever in livestock. He mentioned Farmers' Bulletin No. 1018-F, called "SHIPPING FEVER OF CATTLE," and Leaflet No. 38-L, called "MAINTAINING THE HEALTH OF LIVESTOCK IN TRANSIT." You may have copies of these publications by addressing your request to this station or by writing directly to the United States Department of Agriculture in Washington, D. C.

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U. S. Department of Agriculture

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YOUR FARM REPORTER AT WASHINGTON.

RELEASE Tuesday, October 14, 1930.

Crops and Soils Interview No. 56:

Out of the Farm Woods.

ANNOUNCEMENT: Your farm reporter at Washington will now make his report. He talks to the specialists of the United States Department of Agriculture. Then he passes the word along to us. Sometimes, we get some helpful suggestions that way-----What is it this time, Mr. Reporter?-----

Here's a suggestion. Maybe some of us can help ourselves get out of the woods, by getting into the woods, and getting out the wood.

Be that as it may, there will be some old familiar music in the woods this winter. The sound of the ax will ring out on the frosty air more than it has for years past. That is especially likely in some sections where the drought burned the profits out of other cash crops.

The old farm woods "ain't what she used to be", but still she is "an ever-present help in the time of trouble," for many farmers.

Remember during the World War -- the cord-wood we did cut! Coal was needed 'over there'. In the emergency, we fell back on the Farm Woods and soon had the wood-pile mounting high in old-time style; to say nothing of all the ties and timbers, posts and poles we produced.

Mr. W. R. Mattoon, extension forester of the United States Forest Service, suggests that we may be able to get a lot of help out of our woods this winter. In many cases, we can harvest a considerable cash crop from our timber. At least, we may be able to cut down expenses by making the farm woods supply more of the family fuel.

Before going any further, however, I am going to break down and confess. I not only talked with Mr. Mattoon, but he gave me two of the little pamphlets he has written on this subject. One has the enticing title of "Profits from Farm Woods; Money-Making Examples from Southern Farmers." That is United States Department of Agriculture's Miscellaneous Publication No. 87.

That is just a collection of actual instances of how farmers have cashed in on the cuttings from their farm woods. A lot of ideas can be harvested from reading how some of the other fellows have done it.

The other publication is shorter, pithier, and of more general application in all parts of the country. That one is called "The Farm Woods; A Savings Bank Paying Interest." It is United States Department of Agriculture Leaflet No. 29.

Mr. Mattoon is frankly a man with an ax to grind. But the ax, is our ax. He is trying to sharpen it up, so we can do keener, more intelligent cutting in the Farm Woods.

By the light of the sparks from his grind-stone, it appears we can have our woods and cut it, too, if we use our heads as well as our hands in the cutting. In fact, in many cases, it may actually improve the farm woods to cut out some of the timber for farm use and even as a cash crop.

Timber is a crop --- grown from the soil. That is the main idea these foresters are always trying to get across to us. In cutting, Mr. Mattoon suggests that we cut our timber with an idea to keeping the woodland producing the best quality timber at the fastest rate.

Don't cut everything that you can possibly sell. Cut a tree here and a tree there and always leave a good stand of trees as a basis for continuous production.

Some timber tracts it may pay to cut for saw logs, piling and poles, by taking out only the bigger or mature trees, and leaving the "little ones" to grow and make the next crop. I don't mean by that to leave your little ones to grow the next crop, but leave the little trees. Too many people in this country already have left to their descendants the job of looking out after the future wood supply. They have mined timber, instead of handling it like a crop.

In the case of other tracts of timberland, you may be able to improve them by cutting or thinning another way. As Mr. Mattoon says, the smaller, over-crowded, crippled, crooked, and large-limbed or "horny" trees should be cut out. Also the trees of the less valuable kinds. That will leave you the straight, thrifty, larger trees for developing high-grade, high-priced timber.

Your County Agricultural Agent, or your State Forester, or the Forest Service of the U. S. Department of Agriculture, can furnish you information about the best way to manage and cut your woods.

Mr. Mattoon warns that in selling your timber as a farm crop it should, generally speaking, consist of the rough timber products such as saw logs, and poles, and piling, hewed crossties, and cordwood. Lumber

is not included for it is well for most farmers to keep out of the sawmill business. As a rule, the average farmer, and even some of us who may not admit we are average farmers, had better produce and cut timber in its rough form and not bother with manufacturing it.

We can grow our own timber and keep the cash we would otherwise have to pay out, at home. Mr. Mattoon points out that we can make more, if we use the lower grades of timber on the farm and sell the choicer grades. That is, within reason.

Farm timbers used in contact with the ground should be durable woods. For fence posts use only such woods, as the black locust, or red cedar, or white or post oaks, or chestnut, or red mulberry, or sassafras. Or if you use sap timbers such as soft maple, or basswood, or poplar, or gum, or sap pine, treat them with creosote.

Mr. Mattoon also suggests that we season our fuel wood well. Well seasoned wood makes more heat. And, as the house wife well knows from experience, it saves time and worry in the home.

As for the stuff you sell, Mr. Mattoon gave me some pointers on marketing it. He called them profitable pointers. He says cut or "harvest" your own timber crop. Woods work is good winter work. And always keep in mind, that the farm woods have many timber crops in it, and handle accordingly.

By harvesting our own timber we can sell our labor and that of our teams or trucks, just as we do in selling field crops. Of course, the first thing is to know what you want to sell. Get a reliable estimate of the amount and value of the timber you have for harvest. If need be, get experienced help in deciding what trees to cut and what to leave standing for future crops.

Get prices from as many sawmills and other wood-using plants as you can. And before selling, talk things over with neighbors who have sold timber. Benefit by their experience, if you can. As I said before, your county agent or your State forestry department may be able to give you some good tips.

And when you sell, be sure you are selling to responsible buyers and use a written agreement. That is especially needed, if you let the buyer do the cutting.

And in splicing out your income with products from your woodlands, remember, as Mr. Mattoon says, that "the woods are a farm savings bank to be drawn upon in times of extra need. If it is drawn upon only to the extent of cutting the growth or interest, the capital remains untouched, and the investment continues undiminished."

ANNOUNCEMENT: The suggestions you have heard, as well as others equally valuable, are all contained in the Farm Woods, A Savings Bank Paying Interest. You can get that publication by writing to Station _____ or by writing direct to the United States Department of Agriculture. Just ask for Leaflet No. 29.

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U. S. Department of Agriculture

YOUR FARM REPORTER AT WASHINGTON

Wednesday, October 15, 1930

NOT FOR PUBLICATION

Speaking Time: 10 Minutés

Poultry Interview No. 57: KEEPING THE POULTRY FLOCK HEALTHY

ANNOUNCEMENT: Time again to hear from Your Farm Reporter at Washington, and this is the day for his report on poultry. The topic for today is "Keeping the Poultry Flock Healthy." Your Reporter brings you timely suggestions on this problem, direct from his Department of Agriculture poultry friend, Mr. A. R. Lee. Now I take pleasure in presenting, again, Your Farm Reporter....

"Millions for Defense, but not one cent for tribute."

That was a stirring rally cry, once. It could be again. Why not put it into practice, in the poultry industry?

Mr. Lee agrees that, if we did so, we might save ourselves millions of dollars a year.

But first, maybe we'd better define what we mean by defense. We don't mean, I take it, the kind of defense exemplified in the following story. Two neighbors mixed up in a trifling dispute, but they were both inclined to be rather hot-headed, so the dispute went to court.

"Your Honor," charged the complaining neighbor, whose name was Doolen. "I loaned Pat McGinnis my large kettle, and when he returned it, there was a big hole in it."

The judge turned to the defendant, "Well, Mr. McGinnis, what have you to say for yourself?"

"Please Yer Honor, Sir," said Mr. McGinnis, "In the first place, I never borried that kittie; in the second place, it was in good condition when I returned it; and in the third place, the kittie already had a hole in it when I borried it."

Well, you can hardly call that a million-dollar defense, by any stretch of the imagination.

10-15-30

But now suppose we take a pointer from the Chinese who go on the theory that an ounce of prevention, actually is worth much more than a pound of cure. There's a tradition in China that the main function of a physician is not to cure illness, but to keep people from BECOMING ill. And I ask you, doesn't it seem sensible?

As they say in football, a good offense is often the best defense. Keep your opponent on the run, make him take the defensive----and your own defensive problems become relatively few.

Well, modern science would have us apply these tactics to the control of poultry disease. Scientists would have us devote more of our energy to keeping disease germs and parasites on the run. The watchword is "Prevention." Because they believe prevention is our strongest line of defense. The minute that germs and parasites gain a foothold, they begin exacting tribute----and it's hard to tell how costly this tribute may turn out to be.

Mr. Lee expressed this in the first sentence he spoke to me. "When I say 'keeping the poultry flock healthy,'" he said, "I mean KEEPING it healthy."

Well, how close can you come to doing it?

"Practically all poultry diseases," Mr. Lee answers, "can either be prevented entirely or kept down to a small figure. First, by careful and rigid selection of breeding stock. And then, by good management, strict sanitation, and comfortable housing."

"Just as one every day example, I visited a poultry farm in Virginia a few days ago," Mr. Lee told me. "This farmer had about 3,000 pullets; and in practically every house I found colds and rumpy condition prevalent. These pullets had all been raised on free range, too. But for one thing, they were rather crowded in the houses; and for another, they had had practically no green feed, because of the drought. Possibly their resistance was lowered also, by lack of corn in the ration, which reduced the desirable vitamins. Thus, they were an easy prey to colds and rump."

"But how easily all this could have been prevented. A little more floor space per pullet; a little cod-liver oil, when green food was lacking; and a small amount of corn. All this trouble and worry and expense could have been avoided by simple every day precautions."

Mr. Lee was also reminded of a recent call he received from a poultry-raiser in Maryland. This man reported an outbreak of colds, which were leading to rump. Mr. Lee found that the trouble lay in the automatic watering devices. These were keeping the floors wet and thus making the poultry houses damp.

Now, Mr. Lee says that the first step in maintaining health is "careful and rigid culling of breeding stock."

"Birds that are bred and selected for vigor and soundness of body are able to stand conditions which might result in disease in weaker birds," he explains. "It's necessary to observe only a few fairly simple rules. For instance:

"Select pullets carefully this fall and cull out all those which show signs of weakness. This will help a lot to prevent disease in the flock during fall and winter.

"At the same time, cull out fowls that have been sick and have apparently recovered. They hardly ever make desirable breeders.

"And by all means, get rid of old hens. Culling out the older hens carefully is one of the most effective means of eradicating tuberculosis from your flock. Tuberculosis is largely confined to hens over 2 years old, and they are the most common spreaders of the disease."

Now, let me list briefly a few of the other more important points Mr. Lee emphasized as essential in disease prevention. He stressed the necessity of putting newly acquired birds in quarantine----of keeping a weather eye out for disease and then isolating sick birds promptly----of destroying sick fowls ----and so on.

Speaking of quarantine, he recommends that all new stock be kept under observation, for at least 10 days before it is put in with the regular flock.

He believes that every poultry raiser should make it a point to be familiar with external symptoms of common diseases. Then, by keeping on the lookout for symptoms, he can isolate sick birds immediately. For instance, at this time of year, watch out for any symptoms of colds, roup, diphtheria and chicken pox, especially.

"In many cases," Mr. Lee declared, "I believe poultry raisers would be better off if they destroyed sick fowls immediately, rather than try to treat them. First, of course, determine the nature of the disease. And then burn the dead birds or bury them deep in the ground. If you're in doubt as to the nature of the disease, write to your state experiment station, some of which have laboratories to which properly packed diseased fowls may be sent, for post-mortem examination.

"After you know what the trouble is, then of course the thing to do is to take every precaution to prevent further trouble. In the case of chicken pox, for instance, it may be advisable to vaccinate the remainder of the flock.

"And by the way, there's one thing to remember about chicken pox, and for that matter other diseases," Mr. Lee remarked. "The mortality may be low. You may actually lose only a few birds. But remember that such infection leaves fowls weak and emaciated, with a predisposition to roup and other diseases.

"The economic loss from disease is always greater than can be figured from the mortality. A much greater loss results from the low production of fowls which are affected by disease, but which do not die."

Now, in addition to the points already mentioned, keeping fowls healthy in fall and winter means doing many other things, as you know. It means giving them plenty of feed, and the proper kind of feed; it means keeping them comfortable, with plenty of room, fresh air, sunshine, and dry quarters. Above all, perhaps, it means maintaining strict sanitation. Cleanliness, besides being next to godliness, is also unquestionably next to profits, in poultry raising.

ANNOUNCEMENT: Your Farm Reporter at Washington, has just brought you his report on the question of "Keeping the Poultry Flock Healthy"; and he has asked me to remind you of three bulletins that you may want to write for. "Diseases of Poultry," is Farmers' Bulletin No. 1337-F; "Mites and Lice on Poultry," Farmers' Bulletin No. 801-F; and "Feeding Chickens," Farmers' Bulletin No. 1541-F. These bulletins are free, as long as the supply lasts. Send your request to Station _____ or to the U. S. Department of Agriculture in Washington.

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U. S. Department of Agriculture

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YOUR FARM REPORTER AT WASHINGTON.

RELEASE: Thursday, October 16, 1930.

Federal Farm Board Interview No. 56:

Co-op Developments in the Northwest.

ANNOUNCEMENT: The farmers' cooperative marketing movement is advancing in giant strides these days. To keep up with developments, we have asked your farm reporter at Washington to visit the Federal Farm Board and find out what is doing. Today he has a report of interest to dairymen, fruit growers, and wool producers especially, as well as to all those interested in farmers' co-ops in general. -----Well, Mr. Reporter -----

Here are some of the recent developments in cooperation in the Pacific Northwest and western Mountain States.

Mr. William A. Schoenfeld told me about them. Mr. Schoenfeld is the regional representative of the Federal Farm Board in that vast section of the country. I caught him while he was on a flying visit to the Farm Board headquarters in Washington.

I say "flying visit" advisedly. Mr. Schoenfeld seemed to have acquired the airplane habit. It saves time. Developments in cooperation are coming so thick and fast these days, it takes an airplane to keep up with them.

Let's take a sort of airplane view of the western States and let Mr. Schoenfeld point out to us what the farmers are doing. Let's view the dairy farmers organizations first.

Remember, a couple of weeks ago, we were talking about the formation of a new overhead organization by the co-op creameries in Oregon. And the cooperative agreement entered into between that new Oregon association and the big associations of creameries in Washington and California to sell through each other and prevent dumping of butter on West Coast markets.

Looking ahead a bit, Mr. Schoenfeld sees an affiliation of that group of West Coast creamery associations with the Land-o-Lakes creameries east of the Rockies. The plan is for an agreement whereby the surplus of milk powder, casein, and occasionally butter, which moves eastward will be handled by the Land-o-Lakes, instead of through a number of private commission merchants.

1. The first part of the paper is devoted to a discussion of the

main results of the paper, which are summarized in the following

theorems. The first theorem states that if f is a function of bounded variation on $[a, b]$, then the Riemann-Stieltjes integral $\int_a^b f dg$ exists and is equal to $f(b)g(b) - f(a)g(a) - \int_a^b g df$. The second theorem states that if f is a function of bounded variation on $[a, b]$, then the Riemann-Stieltjes integral $\int_a^b f dg$ exists and is equal to $f(b)g(b) - f(a)g(a) - \int_a^b g df$.

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3. The third part of the paper is devoted to a discussion of the main results of the paper, which are summarized in the following theorems. The first theorem states that if f is a function of bounded variation on $[a, b]$, then the Riemann-Stieltjes integral $\int_a^b f dg$ exists and is equal to $f(b)g(b) - f(a)g(a) - \int_a^b g df$. The second theorem states that if f is a function of bounded variation on $[a, b]$, then the Riemann-Stieltjes integral $\int_a^b f dg$ exists and is equal to $f(b)g(b) - f(a)g(a) - \int_a^b g df$.

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6. The sixth part of the paper is devoted to a discussion of the main results of the paper, which are summarized in the following theorems. The first theorem states that if f is a function of bounded variation on $[a, b]$, then the Riemann-Stieltjes integral $\int_a^b f dg$ exists and is equal to $f(b)g(b) - f(a)g(a) - \int_a^b g df$. The second theorem states that if f is a function of bounded variation on $[a, b]$, then the Riemann-Stieltjes integral $\int_a^b f dg$ exists and is equal to $f(b)g(b) - f(a)g(a) - \int_a^b g df$.

Together those wide-spread regional cooperatives will do close to \$100,000,000 worth of business. Their agreement looking toward more orderly marketing, Mr. Schoenfeld says, is the logical outcome of the whole Federal Farm Board program of encouragement to co-ops.

There is also another new development among western dairymen. A number of very large creameries in the Intermountain States of Idaho, Utah, and western Colorado, are associating themselves into a Council of Dairymen's Cooperatives.

The Council will work for the improvement of the herds of the individual members of the various creamery associations which are forming it. It will aim to cut the costs of milk production on the farms.

The Council will also try to bring about the better handling of milk on the farms, so that the milk will reach the creamery in first class condition. Another phase of its work will be the improvement in butter making. You see, these affiliated co-ops plan to improve both the raw material and the finished product, and cut down the costs both on the farm and at the creamery.

The program will include the establishment of a butter scoring service among the member creameries, and an advisory service as to market outlets and demand and prices, and general market outlook information.

The Council of Dairymen's Cooperatives will work hand in hand with the State Agricultural colleges, the United States Department of Agriculture, the State Agricultural Departments and the Federal Farm Board.

The Council is to be merely an advisory and education organization. It does not intend to manufacture or market the dairy products for its members.

The combined business of its members, Mr. Schoenfeld estimates, will probably represent about ten million dollars when the Council gets into operation.

This same general plan for an advisory Council is also being undertaken, among western fruit growers. Mr. Schoenfeld tells me that co-operative fruit marketing organizations, handling mainly apples, have organized an Apple Marketing Council.

The Apple Marketing Council will also be primarily educational. It will supply its members with market information about the supply and demand and market outlook for apples. It will endeavor to stimulate foreign sales. And in doing all this it will collaborate with the State Agricultural Colleges, State Departments of Agriculture, United States Department of Agriculture, and the Federal Farm Board.

Of course, the membership in this Apple Council as in the Dairy Council is limited to organizations which comply with the Capper-Volstead Act. That is, the associations must be real cooperatives so organized that the control is in the hands of producer members and run for the mutual benefit of the members.

These councils, Mr. Schoenfeld explained, are still in process of formation, and when he was talking to me, the details of the final set-up were not yet complete.

You recall last week we heard something of the tremendous development of the National Wool Marketing Corporation. That National Wool Marketing Corporation gathers wool from all parts of the country. Naturally, the wool growers of the big range areas included in Mr. Schoenfeld's territory are important members of that new organization.

As a result of the activities of the National Wool Marketing Corporation considerable tonnage of wool has been signed up in the range country of the West. The newly organized wool associations of the West have increased the total amount of wool handled by the National to a high proportion of the entire United States wool crop.

The Pacific Cooperative Wool Association, one of the older cooperatives affiliated in the National has likewise increased its wool clip, mainly in Oregon. That too has helped swell the total tonnage of the National.

One development especially worth mentioning in this connection, is the result of financing under the new set-up. Because of the Intermediate Credit Bank System, Mr. Schoenfeld says, much of the lamb crop and the ewes, which otherwise would have been sacrificed because of existing low prices for lambs and mutton, are being held by the growers and are gradually being marketed in an orderly manner. In that way, they are avoiding taking steps which might have brought about very distressing conditions in the sheep industry.

So you see, whether it is wool or apples, milk or butter, the broad program of encouragement of cooperatives by the Federal Farm Board is showing considerable progress in our great Northwest.

Another day we may fly over some of the other sections of these United States and glimpse what other farmers are doing to improve the production and marketing of their crops.

ANNOUNCEMENT: You have just heard some recent developments in farmers cooperative marketing in the Northwest, as outlined to your farm reporter at Washington, by Mr. William A. Schoenfeld, regional representative of the Federal Farm Board, cooperating with the Bureau of Agricultural Economics of the United States Department of Agriculture.

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YOUR FARM REPORTER AT WASHINGTON

Friday, October 17, 1930.

NOR FOR PUBLICATION

Speaking Time:

Dairy Interview No. 57: WHAT'S AHEAD FOR THE DAIRY BUSINESS?

ANNOUNCEMENT: Once again Station _____ presents Your Farm Reporter at Washington, with his reports of timely interviews with U. S. Department of Agriculture specialists. Today is his day to chat with dairy farmers. He brings you now the results of his interview with Department of Agriculture economists on the dairy economic situation. What's ahead for the dairy business, Mr. Reporter?

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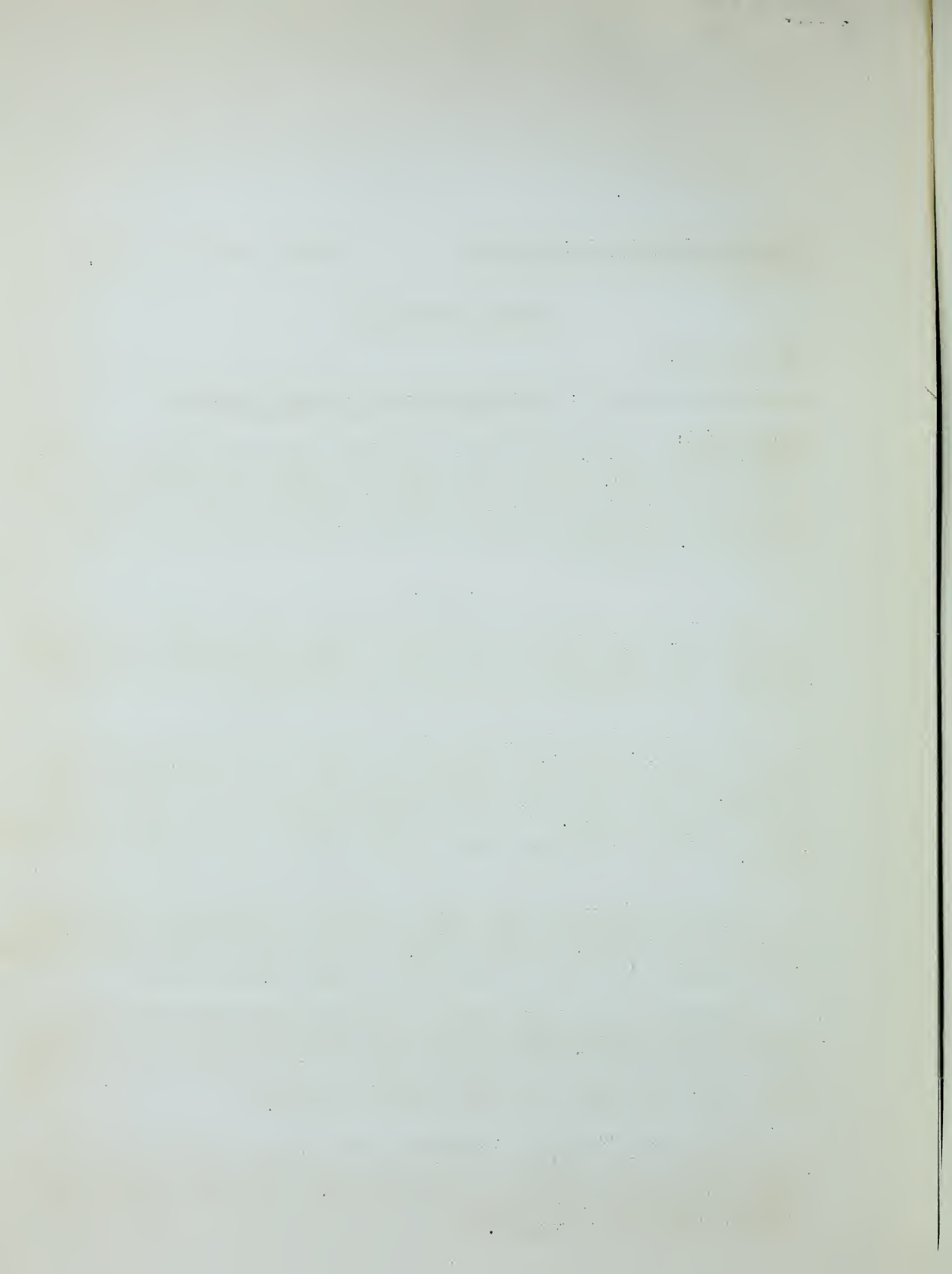
Well, I have carefully read and re-read the latest report on the dairy outlook, and I have talked it over with the dairy economists in the Bureau of Agricultural Economics. And, as I gather the facts, there are several features of the situation which may be said to stand out.

In the first place, they say, don't overestimate the effects of the drouth on dairy production. As a matter of fact, the sections which were seriously hurt by the drouth, produce only about 15 per cent of our total butterfat. And in any event, the decreased production as a result of the drouth is only temporary. It will increase again. In fact, while production fell off in July and August, there already seems to be a tendency for it to pick up.

Now, what does this mean? Well, it seems to me that this outlook report, which was issued in September, is the most interesting --and significant--report released in quite a while. So I'm going to quote directly from it. Regarding the effect of the drouth, it says this: (I quote)

"Feed supplies are not seriously depleted in the specialized dairy territory where approximately 85 per cent of the total butter is produced. Even if production in areas outside of this territory is reduced by as much as a third as a result of the feed shortage, total production would be only about 5 per cent under what might usually be expected.

"Substantial increases in numbers of milk cows and heifers are now taking place. This indicates that when the disturbed conditions due to the drouth and business depression shall have passed, the dairy industry is likely to find itself overexpanded, necessitating further readjustment to consumer demand for its products."



Now this brings us to another fact that may be called outstanding. It is the fact that farmers are retaining many heifer calves; and that the number of aged milk cows disposed of for meat, is still below normal.

What does this mean? Well, no one can say for sure just how things will work out. But it may mean, quite conceivably, that we'll have a greater degree of surplus production next year than we have had this year. Unless---and this leads to the third outstanding point---we cull our herds rather vigorously.

In fact, if there is anything sure about the future, I gather that this thing is the desirability of close culling. The outlook report emphasizes culling, and later on I talked with Mr. B. H. Bennett, of the Bureau of Agricultural Economics, and Mr. Bennett amplified this recommendation.

He believes that very, very strict culling will be profitable; and he believes that now is the time to begin it.

The idea in close culling is not merely to cut down production. Not at all. In fact, the main function of strict culling, in Mr. Bennett's opinion, will be to lower costs of production. Weeding out low producers will enable the herd owner to make a profit at lower prices. Suppose that prices don't get better, for a year or so at any rate. Or suppose they go still lower. Well, you can still make a good profit if you can reduce your production costs enough to meet the situation. And the quickest way to reduce production costs, ordinarily, is to get rid of the unprofitable cows, and feed your feed to the cows that will pay you a return on it.

But while we're on the subject of price, let's take another look at the report. In the very first paragraph we find this summary of the situation:

"A marked reduction in production of dairy products during the summer caused a very pronounced upturn in prices, particularly for butter, beginning in July," it says. "Prices of dairy products are expected to advance moderately during the fall, prior to the usual seasonal drop in midwinter, but to remain at a lower level than has obtained during the last few years, owing to the prevailing tendency toward expansion of the industry. If business conditions improve, there will be a tendency for consumer demand to increase. Conditions in the dairy industry, however, such as increasing numbers of cows, may be expected to prevent any substantial strengthening of dairy prices."

Now this is what we might call the short-time outlook. But how does the situation appear from the long-time viewpoint, looking ahead over a period of years? Well, let's return to the outlook report once more.

It begins by pointing out that "the effects of the business depression and the drouth tend to obscure the underlying condition of the dairy

industry. Actually, there is a widespread tendency to make substantial further increases in the number of milk cows kept on farms.

"Even if allowance is made for some forced local liquidation the present trend in milk cow numbers in the country as a whole seems to be distinctly upward," the report says. Dairy farmers have been, and apparently still are, saving more than the customary number of heifer calves, and reports from stockyards would seem to indicate that the number of aged milk cows being disposed of, is still somewhat below normal. As long as this tendency continues the long-time outlook for dairying is at best, unfavorable."

In another section of the report, we find this same trend pictured from a different angle. I quote:

"There are certain developments in American agriculture which tend toward an expansion in the dairy industry at a somewhat greater rate than in the recent past. Diminution in the number of draft animals has resulted in more feed being available for milk cows. The expansion in use of sweet clover and alfalfa in the Corn Belt and parts of the wheat belt tend also to stimulate dairying. On the whole, it seems likely that the pressure toward expanding the dairy industry will be greater in the next 10 years than it has been normally in the past 10."

Then, after discussing reasons back of this probable over expanded condition, the report states the long-time outlook for prices, as follows: "This condition," it says, "is likely to continue to hold the price of dairy products at a lower relative level than has obtained during the last few years."

Well, this brings us right back again to culling. According to the report, it means that from the long-time point of view as well as a short-time viewpoint, it will be more and more necessary to dispose of low-grade and inefficient cows. Rigorous culling of low-producing cows, it says, will undoubtedly prove profitable in the next few years.

And this, as I see it, is the keynote of the dairy outlook this fall.

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ANNOUNCEMENT: That was Your Farm Reporter at Washington speaking. He has just brought you a report on the dairy situation, from the Bureau of Agricultural Economics of the U. S. Department of Agriculture in Washington. For copies of the outlook report, write to Station _____ or direct to the Department of Agriculture.

YOUR FARM REPORTER AT WASHINGTON.

Monday, October 20, 1930.

NOT FOR PUBLICATION

Speaking Time: 10 Minutes

All Regions.

WEANING AND FEEDING THE COLT THIS FALL AND WINTER.

OPENING ANNOUNCEMENT: And now, ladies and gentlemen, Station _____ takes pleasure in presenting one of the regular Washington Farm Reporter programs broadcast in cooperation with the Federal Department of Agriculture. The subject for today is WEANING AND FEEDING THE COLT THIS FALL AND WINTER. You will now hear from Your Washington Farm Reporter.

---ooOoo---

Folks, I want to talk to you for a little while about the thousands and thousands of prancing colts that are kicking up their heels much to the joy of farm kids of this country.

Raising colts used to be a profitable side line all over the country, but gasoline and balloon tires have driven a lot of our colts and brood mares out of the picture, and even turned some of the pastures into landing fields. However, there is still some profit in raising colts, as thousands of farmers can testify. The information that I'm going to pass on to you is the result of a personal interview I have just had with Mr. J. O. Williams in charge of the horse office of the United States Department of Agriculture.

Taking a comfortable seat over in one corner of the office where I could gaze on the beautiful pictures of horses hanging around the walls I said, "Now Mr. Williams, tell me about this business of weaning colts."

"Well," he said, "I think the most critical time in a colt's life is the weaning time. However, if the mare and colt have been properly fed and managed during the nursing period---the weaning time ought not to present a very hard problem.

"In other words, if a horseman will take steps to wean the colt a month or so before weaning is necessary, the whole procedure will be considerably easier on the colt, the mare, and the owner.

"For instance at about 2 months of age the foal will take dry feed, and will begin nibbling from its mother's feed box. Feed them both some ground oats, corn meal and bran. A little later build a "creep" in the pasture, or a special feed box in the stall so that the foal can be fed separately."

According to Mr. Williams, a colt that is brought up in this manner and taught to eat several months before weaning time will not present much of a problem when actually separated from its mother.

"Mr. Williams," I said, "this is the 20th of October. I think most colts are already weaned by this time."

"Perhaps they are," he said, "and that's the point I'm trying to make you see. If a horseman is having trouble in the weaning of colts this fall, it may be because he failed to teach them to eat while they were still nursing. "

At this point I interrupted to ask about how old a colt should be at weaning time.

"From 5 to 7 months," he replied. "Six months is about the average. A colt dropped the first of April would be six months old and about ready to wean on or about the first of October. Late colts can be weaned a little later in the season. Plenty of late colts are going through the weaning process now. Whether the colt is 5, 6, or even 7 months old at weaning is not such an important thing. The main point is to have the colts in good condition and eating freely before separation takes place."

"Mr. Williams," I said, "does it do a colt any good to let it nurse, say 8 to 9 months?"

"No, I don't think so," he replied. "In case the mare is in foal, allowing the colt to nurse more than six months may decrease the vitality of the mare and thus affect the development of the next foal. If the colt is getting plenty of nourishment from grain, grass, and roughage, the young animal will not be seriously set back when shut off from its dam's supply of milk."

I asked Mr. Williams about weaning colts with muzzles.

"I wouldn't do it," he answered. "We wean our colts at the Government farm by separating them from their mothers. When taken away from its mother a colt ought to be placed with another if possible; preferably with one of the same age and sex. Some colts get rather "rambunctious" when separated from their mothers-----therefore, be sure that they are in a good, safe, comfortable place."

"Colts may be housed satisfactorily in either the stable or an open shed. The main requirements are that the quarters, wherever they are, be dry, sanitary, and provide fairly good protection from winds. Keep the quarters clean, well bedded, and occasionally disinfected. Lice are to be suspected when the colts get to rubbing and lose patches of hair."

I asked Mr. Williams about freeing colts of these pests, and now listen to his remedy.

"Use an ordinary coal-tar disinfectant. Cresol is good. Apply the solution with a small mop and simply mop the places where the insects are visible."

Feeding the colt during the first fall and winter is also important. Supply plenty of good, clean hays. Good, clean clover is very palatable and slightly laxative. Timothy hay is commonly fed to colts. Well-cured alfalfa hay, free from dust, is one of the best roughages for a growing colt but because of its relatively high protein content it generally is economical to supplement it with other roughage, such as timothy, mixed hay, or corn fodder.

Never allow colts to gorge themselves on dry feed. Give them plenty but don't overfeed. A safe rule is to give them all they will clean up. Oats, corn, and peas, preferably well ground, are suitable grains. Bran, linseed meal, or gluten feed will add protein and also land variety. Cottonseed meal should NEVER be fed to young colts.

Now reach for your pencil and paper and I'll give you one of the colt rations for the first fall and winter of the colt's life. This ration came from Mr. Williams. Naturally he had plenty more, but I'll try to give you only a few now. Here's the first.

Two parts of corn, 5 parts of oats, 3 parts of bran, preferably wheat bran, and one part of linseed meal. Now for the second ration. Ready? Four parts of oats, one part of corn, and one part of wheat bran.

Wheat bran is a splendid feed for the growing foals, and when wheat prices will permit, this feed can be used to a good advantage, not only for feeding young foals, but for adult horses as well. Naturally, it gives best results when fed as a part of a regular ration.

Silage is not a very good colt feed. Sliced roots, such as carrots, and even sugar beets, are very palatable and have a cooling effect on the digestive system. A liberal supply of salt, pure water, and plenty of fresh air and exercise are essential to proper development of young horses. Prolonged idleness following exercise causes constipation. It is often said that a horse is made during its first winter. Certainly this is a critical stage in the animal's life and at no other age will proper feed and attention do as much to make a good horse. If stunted during the first winter the animal never gains the proper size and shape.

Folks, I would like to tell you a lot more of the many good points Mr. Williams gave me on weaning and feeding the colt this fall and winter, but my time is up so I'll have to slow down. If you want more information on this subject ask for a copy of Farmers' Bulletin No. 803-F, called "HORSE-BREEDING SUGGESTIONS FOR FARMERS." It contains 18 pages of practical information on raising horses.

CLOSING ANNOUNCEMENT: Ladies and gentlemen, you have been listening to Your Washington Farm Reporter in one of the regular agricultural programs broadcast from Station _____ in cooperation with the Federal Department of Agriculture. Drop us a line if you want a copy of Farmers' Bulletin No. 803-F, called "HORSE-BREEDING SUGGESTIONS FOR FARMERS."

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YOUR FARM REPORTER AT WASHINGTON.

Tuesday October 21, 1930.

Crops and Soils Interview No. 57:

The Agricultural Situation.

ANNOUNCEMENT: Now let's hear what your farm reporter at Washington has to say. You know, he sees the specialists of the United States Department of Agriculture and talks to them about farm affairs. Then he reports back to us ---- Well, Mr. Reporter, what's the good word this time? ----

I've been trying to find out where a farmer can get all the information he is supposed to have these days.

It seems there are a thousand and one things we need to know. Every day in the year, all over the world, things are happening which directly affect us, and the prices we get for our stuff.

You know, they used to say that prices are the only language a farmer will listen to. Prices certainly are mighty convincing at times! The trouble seems to be that in a lot of cases prices speak in an unknown tongue.

In order to interpret what is being said by prices, Mr. A. B. Genung, of the Division of Economic Information of the United States Department of Agriculture, tells me we need to know the facts of production, and movements and consumption of farm stuff, which form the background of prices.

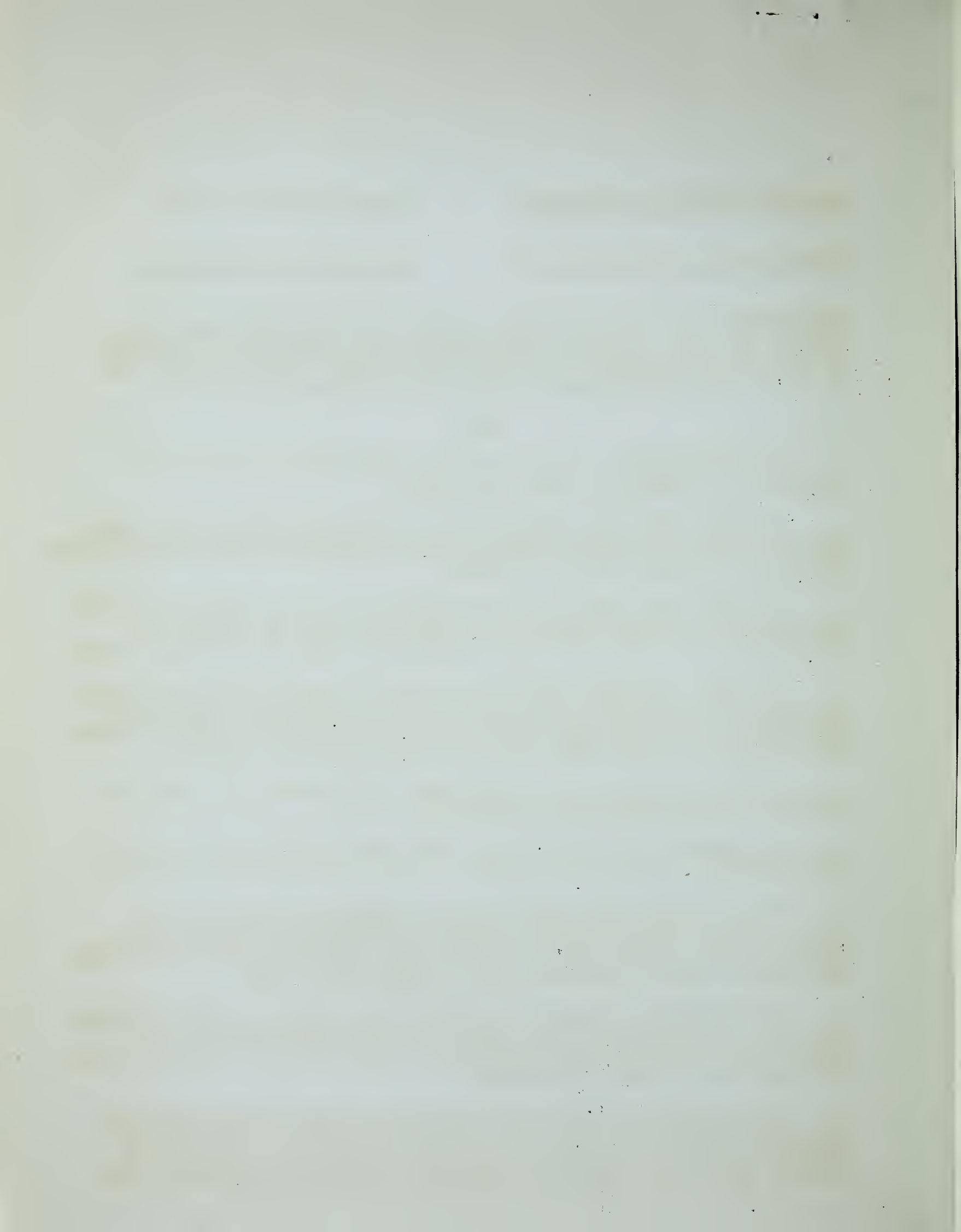
If some of us are going to make farming pay, we've got to plan our crop and livestock production accordingly.

"Y-yeah!" I said to Mr. Genung. "But where are we going to get all those facts?"

Well, to make a long story short, he explained to me that in the Bureau of Agricultural Economics of the United States Department of Agriculture we have a large number of experts busy collecting facts, and figures, and studying them out and getting them in shape for our use.

The Bureau has its agents in all the leading markets of this country. It is also now building up a more complete foreign market service, so we will be even better able than heretofore to judge about the foreign production and demand which affects our markets.

Then there are our well-known crop and livestock estimates made up from reports direct from thousands of farmers themselves. There are also reports of stocks of various farm products on warehouses and receipts at markets. All in all, there is a vast deal of information collected by the



Bureau every hour of every day and every day in the year.

"Yes, but what becomes of all that information?" I asked, just to make sure. And Mr. Genung reminded me, that there is a steady stream; you might say, a roaring river; of timely information going out from the Bureau each and every day. It goes out by telegraph, and telephone, and radio, and mail. We read it here and there in the newspapers, hear it over the radio, or get it in the form of government publications direct from the Department.

Of course, some of that applies to one line of farming and some another. We all know about some of that information. I dare say, there is not a one of us who doesn't get part of it. But there is such a staggering amount of it. How can a busy farmer get a complete general picture of our agricultural situation?

Mr. Genung points out that there is a way. All the many nation wide and world-wide streams of facts which pour into the Bureau of Agricultural Economics are constantly being strained and funneled down to get the most significant items.

Developments as they show up in facts and figures are closely watched throughout each month. Facts about growing crops and animals, about the movement of crops to markets and into foreign trade, stock in cold storage and elsewhere, and the trend of prices are all set down in highly condensed form especially for use by busy farmers, extension men, dealers, and others.

All those facts are pieced together to form a miniature picture of the whole agricultural situation.

When Mr. Genung told me that he was coming right down the lane to my house! That was just the kind of a Tom Thumb map of farm market conditions I was looking for!

"Where can we get that little picture of the things which are behind prices?" I asked.

In answer he handed me a copy of the Busy Farmers' Blue Book, called "The Agricultural Situation," - And let me say right here that the blue is just the tint of the paper and was being used long before the agricultural depression set in. Anyway, the blue is a very light, cheerful sort of blue.

"The Agricultural Situation" or a Brief Summary of Agricultural Conditions, is issued once a month by the Bureau of Agricultural Economics of the United States Department of Agriculture. It is a little pamphlet of twenty-four small pages packed full of meaty information, tersely written, with as few figures as possible to tell the story of what has happened during the past month in the way of production, movement, consumption, and prices in the most accurate and concise manner.

I have a copy of last month's issue right here before me. It starts out with a terse summary of the general situation. Mr. Genung writes that himself. Then come telegraphic reports from agricultural statisticians as to conditions in certain key states. Then various commodity experts summarize

the situation in certain lines, as reported by the Department's agents throughout the country. For instance, the fruit and vegetable specialist presents the fruit and vegetable situation for the past month. The Farm real estate situation is analyzed by a land expert; and so on, including the egg and poultry market situation, the dairy situation, and the cold storage situation. Then follows tables and text showing the trend of crop production, the prices of farm products, and the general trend of prices and buying power and prices and wages. Also the trend of movement to market and the export movement as revealed in figures.

That "Agricultural Situation" with its condensed bird's-eye view of the significant changes month by month is sent free to various correspondents of the United States Department of Agriculture and to public institutions. But Mr. Genung tells me anyone can get it for twenty-five cents a year.

As he says, in these times of rapid, highly organized commerce, the successful farmer needs a fund of current information such as he had little use for a generation ago, even 10 years ago. He just can't plan his operations intelligently without such information. Yet he can't follow all the changes in detail or read many long reports. In "The Agricultural Situation," he can get a general summary of conditions in a boiled-down, condensed form.

"The Agricultural Situation" report will give you the general picture. Then you want to follow the market situation with respect to your specialty, be it grains, beef animals, hogs, dairy products, or eggs and poultry, or some line of fruits and vegetables. This likewise can be done with the help of more frequent reports of the Bureau of Agricultural Economics.

Here is how. Write to the Bureau and say, "Gentlemen, I want your weekly reviews of the markets for wheat, (or for dairy products, or for feedstuffs, or for beef cattle, hogs, or sheep and wool, or for fruits and vegetables produced in this section)."

The Bureau will place your name on the mailing list of its nearest branch office for these weekly reviews. And of course in your selling season you'll want the daily reports of quotations which you may get by radio or from the newspapers.

There, then, are the three aids to keeping track of business developments which you probably will find most useful in your business -- for the general view "The Agricultural Situation,"; for the shorter view of the market trends, weekly reviews of the markets for the commodities you have to sell, or wish to buy; for the daily quotations, the newspaper and radio market reports. Send your request for them to the Bureau of Agricultural Economics, Washington, D. C., or through this radio station.

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ANNOUNCEMENT: Your Farm Reporter's talk comes to you at this hour each day except Saturday and Sunday, by arrangement with the United States Department of Agriculture, through Station_____.

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1340
Your Farm Reporter
at Washington.

Wednesday, October 22, 1930.

NOT FOR PUBLICATION

Speaking Time: 10 Minutes.

All Regions.

OPENING ANNOUNCEMENT: Once more your Farm Reporter is on the air. At this particular time he is going to talk about the marketing of poultry and eggs in the European countries. He got this information from Mr. T. W. Heitz, poultry marketing specialist of the United States Bureau of Agricultural Economics. All right Mr. Reporter.

---ooOoo---

Well folks, I've been talking to you for quite a spell about laying rations, culling birds, cleaning poultry houses and various other activities connected with the poultry industry. I want to change the order of that program for today and instead of discussing timely poultry topics for this season of the year, I want to try to tell you something about the marketing of poultry and eggs in the European countries. In other words, I want to lead you up to the backyard fence, let you peep over and see how people on the other side of the Atlantic market their chickens and eggs.

It does even the most successful poultrymen a lot of real good to visit other poultrymen and see how they do things. Mixing ideas, you know. Doubtless you have all heard the old story of the rooster that called out his hens to see the big ostrich egg----just because he wanted them to know what others were doing.

The information I'm going to pass on to you came to me from Mr. T. W. Heitz, poultry marketing specialist of the Federal Bureau of Agricultural Economics. Mr. Heitz along with Rob Slocum, Alfred R. Lee, De. M. A. Jull and still others from the Department of Agriculture attended the World's Poultry Congress in London last July. Instead of returning home when the congress was over Mr. Heitz in company with Mrs. Heitz spent a whole month visiting poultry markets in the leading cities of Europe. I have just received a report of his visits to the various markets.

Mr. Heitz noticed two outstanding things at practically every one of the 20 or more markets visited.

First, the poor quality of both eggs and poultry offered for sale on these various markets. Second, the large number of imported poultry and eggs. I don't mean imported from the United States, but imported from nearby European countries, and even from South American countries.

Per bird, or per dozen eggs, American poultry and eggs command a higher price here than they would abroad. Hence it is not profitable to raise poultry for export in this country. That's why there are no American poultry or eggs on European markets.

Mr. Heitz reports that labor in the European countries is relatively cheap; much cheaper than it is in this country. Even so, he says they do a poor job of dressing poultry. It is quite common in many of the larger markets to see so-called dressed poultry with patches of feathers scattered about over the body of the bird. These feathers are finally burned off and the burning leaves an uninviting bird for the retail trade.

Germany has a unique method of preparing poultry for market. The entrails are removed from dressed birds without cutting or breaking the body flesh in any way. The operation is performed through the vent, and the cavity inside the bird is then filled with paper which gives a plump appearance. Such an operation retards deterioration and is worthy of consideration in this country.

Refrigeration is conspicuously absent in European poultry markets. Poultry is shipped to market, held from one to three days, and sold without refrigeration. Dealers avoid heavy losses by carrying only very small stocks of dressed poultry on hand.

According to Mr. Heitz the European poultry fattening plants are about 25 years behind the plants of this country. Most of them are small, and the methods practiced over there are out of date here.

In some of the European fattening plants the birds are kept out doors. Most of the equipment is home made and much of it rather crude.

Poultrymen of the district of Surrey in southwest England practice progressive poultry methods. A unique method of force feeding has been developed in that section. A machine has been perfected for pumping feed down the throats of birds, and Mr. Heitz says that it works splendidly. The birds are force-fed from 2 to 3 weeks. They really fatten, and no mistake about that. I should think they would have to fatten with a machine pumping feed down the throat. However, these forcing plants are rather small. The largest one Mr. Heitz saw accommodated only about 800 birds.

In Germany and Austria goose raising is a real business. More attention is given to the raising of geese in those countries than to

the raising of chickens. There actually are more geese than chickens on the farms.

When it comes to marketing eggs England wins. She has a very unusual egg marketing law. Every egg that is imported into England, and there are many such, must be stamped with the name of the country from which it came. This is supposed to protect the local producers. If a bad case of eggs is unmarked---the dealer knows they originated in England. If it is stamped---they can be traced to the country shipping them in.

While this law was made to protect the local English poultrymen, in some instances it works to the advantage of outside countries. For example, eggs shipped into England from the Irish Free State command a premium on the Liverpool market because the Irish Free State has taken advantage of the stamp situation, and instead of the stamp signifying simply the origin of the egg, it signifies a GOOD egg. In other words, poultrymen in the Irish Free State are producing better quality eggs on the whole than English poultrymen, and the stamp has become their trade-mark.

By the way, European eggs are packed quite differently from eggs in this country. Where we have a standard 30-dozen case---European countries have a variety of different sized boxes.

The egg box in most general use in the European countries measures six feet long, three feet wide, by ten inches deep. There is a double division board in the center of the box. If a dealer wants half a box of eggs, the box is simply sawed in two, each board then forming an end to the half box of eggs.

Our standard egg cases in this country hold 30 dozen eggs. That's 360 eggs. The big European box I have been talking about holds from 600 to 1,200 eggs.

Over here we use cardboard fillers to protect the eggs. Over there they use fine wood shavings and straw. However, they are expert packers, and few eggs are broken in shipment.

I'll just have time for one more point so I'll tell you about egg grades. Over here we have U. S. Standard, our third-grade egg, U. S. Extra, our second-grade egg, and U. S. Special our top grade.

In making up the American exhibit for the Poultry Congress in London Mr. Heitz spent a whole day looking all over London for an egg corresponding to our U. S. Special, but he didn't find a single egg of that grade. Most of their eggs would be classed as U. S. Standard which, as I have said, is our third grade.

---ooOoo---

ANNOUNCEMENT: Your Farm Reporter has concluded his poultry talk, sent to you at this time each week through cooperative arrangement between the U. S. Department of Agriculture and Station_____.

The first part of the paper discusses the importance of the study and the objectives of the research. It also mentions the scope of the study and the limitations. The second part of the paper discusses the methodology used in the study. It mentions the data sources and the statistical methods used. The third part of the paper discusses the results of the study. It mentions the findings and the conclusions. The fourth part of the paper discusses the implications of the study. It mentions the policy implications and the future research.

The study found that there is a significant positive relationship between the independent variable and the dependent variable. The results also showed that the control variables have a significant effect on the dependent variable. The study concludes that the findings have important implications for policy makers and researchers. It suggests that further research is needed to explore the relationship between the independent variable and the dependent variable.

The study also found that the relationship between the independent variable and the dependent variable is moderated by the control variables. This suggests that the effect of the independent variable on the dependent variable is not uniform and depends on the values of the control variables. The study concludes that the findings have important implications for policy makers and researchers. It suggests that further research is needed to explore the relationship between the independent variable and the dependent variable.

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U. S. Department of Agriculture

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In 340
YOUR FARM REPORTER AT WASHINGTON

Thursday, October 23, 1930

Federal Farm Board Interview No. 57:

New Developments in Livestock
Co-ops.

ANNOUNCEMENT: Now we will hear what farmers are doing about marketing. As you know, your farm reporter at Washington gets the recent developments in our great cooperative marketing movement from specialists of the Federal Farm Board. Each week he reports to us what he finds out. Today it is what's new among livestock co-ops ---- Well, Mr. Reporter? -----

Several new member agencies have been added to the National Livestock Marketing Association.

That's the big news of the last few weeks, as Mr. L. B. Mann, of the cooperative marketing division of the Federal Farm Board, has just given it to me.

Eighteen member agencies are now stockholders of the National Livestock Marketing Association. They blanket the livestock sections of the United States from Pennsylvania and New York to California and Oregon, and from the Canadian border to the Gulf.

The two most recent members are the Intermountain Livestock Marketing Association, formed by livestock men in Colorado, Utah, Wyoming, Montana, and New Mexico, and the Iowa Livestock Marketing Corporation, just launched by farmers in the state of Iowa.

You know, there are three distinct types of co-operative associations which have gone together to form the National Livestock Marketing Association.

First, there are the cooperative sales agencies at the terminal markets. They receive and sell livestock at the big terminal markets on a commission basis. They also assist feeders in buying feeder stock and perform numerous other services----- but most of you know about the terminal associations. They have been operating for the past eight to ten years. They are the oldest and at present the most important members of the new National.

The National Order Buying Company represents another type of member of the National Livestock Marketing Association. The Order-Buying Company's chief job is to handle orders for fat stock which moves direct from the producers to the packers and processors.

Then there is the third or newer type of member in the National. That type includes the district, regional, or state association. The long established Western Cattle Marketing Association, and the newly organized Intermountain Cattle Marketing Association are examples of regionals. The Texas Cattle Marketing Association, formed last Spring, and the Iowa Livestock Marketing Association, just admitted to the National, are both State associations.

Mr. Mann cites the Iowa organization as an illustration of the most recent development in this new type member agency of the National. For years, a number of large independent packing and processing plants have been operating in Iowa, and a large volume of hogs - in fact, 60 to 65 per cent of Iowa's hog production or about seven million hogs, goes direct to the packers without passing through the hands of any cooperative sales organization or terminal market. Each individual hog raiser trades directly with the export buyers of the packers. As a result, prices are uneven, and the farmers often lose through failure to sell on the most favorable market.

The aim of the new Iowa Livestock Marketing Association is to increase the bargaining power of the farmers by getting control of a large volume of that livestock which never sees a terminal market, and directing it to the most favorable market whether that be local packer or eastern packers or open markets like Chicago or St. Louis, or other terminals.

The new association plans to assemble hogs at numerous towns for the purpose of sorting, grading and shipping in double-deck cars to the buyers offering highest prices. The selling of these hogs, however will be done through one skilled salesman located at a Central Point. In other words, the purpose is to market the stock in an intelligent systematic manner instead of every individual farmer competing with every other farmer.

Mr. Mann tells me that under the unsatisfactory method of selling which has been in force up to now, one farmer sometimes may receive \$9.00 per hundred weight for the same grade of hogs, another man better informed about the market conditions may be able to sell for \$9.75. This is due to lack of information and lack of sales ability.

The new Iowa Livestock Marketing Association is designed to meet this local situation and increase the producer's bargaining power.

The new Intermountain Livestock Marketing Association, with members in Colorado, Utah, Wyoming, Montana, and parts of New Mexico, is a regional association very much like the Texas Cattle Marketing Association, which operates mainly in the state of Texas.

They both will market a large part of their thin or feeder stock direct from the range to the Corn Belt feeders.

The Intermountain Association will also make use of terminal markets, in disposing of fat as well as surplus feeder stock, its principal market being Denver. The Texas Association operates terminal market agencies at Fort Worth, Texas, and St. Joseph, Missouri as well as selling considerable direct to feeders.

The Western Cattle Marketing Association with headquarters at San Francisco and Los Angeles, and with members in California, Arizona, New

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Mexico, Nevada, Oregon and Idaho, operates more like the National Order-Buying Company, except it handles cattle only, and no sheep or hogs. It has been in operation for a number of years, and its activities are more or less well known. It sells both fat and feeder stock direct to packer or feeder, but does not operate on a terminal market.

You will be interested to know Corn Belt and other feeders now have at their service their own financing agency, the National Feeder and Finance Corporation, which is a subsidiary of the National Livestock Marketing Association. Mr. Mann tells me the National Feeder and Finance Corporation is just now getting under way.

Its main purpose is to finance feeding of the stock brought from the range and finished either on pastures or in feed lots. Through the assistance of the Feeder and Finance Corporation, farmers are now able to obtain money at a reasonable rate of interest to handle their feeding operations, when not possible to obtain funds from the local banker.

However, if you want further information about how loans may be had on feeder livestock, Mr. Mann suggests that you get in touch with the National Livestock Marketing Association, at 608 South Dearborn Street, Chicago.

So you see, the National Livestock Marketing Association is moving right along, growing as it progresses.

In fact, Mr. Mann, who was just back from South Dakota and Iowa, says there is plenty of interest being shown in this new Livestock cooperative everywhere.

ANNOUNCEMENT: You have just heard the recent developments in the National Livestock Marketing Association as outlined by Mr. L. B. Mann, of the cooperative division of the Federal Farm Board. Any one desiring further information about loans from the National Feeder and Finance Corporation mentioned by Mr. Mann, can get such information either from the National Livestock Marketing Association, 608 Dearborn St., Chicago, or from the Federal Farm Board, Washington, D.C.

1.9
Im 348
YOUR FARM REPORTER AT WASHINGTON

Friday, October 24, 1930

NOT FOR PUBLICATION

Speaking Time: 10 minutes.

OPENING ANNOUNCEMENT: Once more Your Farm Reporter is on the air with one of his regular programs broadcast from Station _____ in cooperation with the Federal Department of Agriculture. Dairying is the subject for today, and he brings you the facts on the outlook for the dairy industry, as outlined to him by the Federal economists

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Folks, I want to talk to you for a little while today about the economics of the dairy industry. Perhaps some of you know that the dairy industry is now in the three billion dollar class. An enormous business, engaging the services of thousands and thousands of people.

Now, while the size of a business is not always an index to its success and prosperity, the dairy industry has been sound over a long period of years because it has been turning out a good product demanded by millions of men, women, and children throughout the country and the world. The dairy industry must be good to be where it is---in the three million dollar class.

However, and now please get this point-----regardless of how much a product is demanded, and regardless of how big an industry grows to be----it's possible to overdo it, unless good, sound, everyday, common, horse sense is used abundantly in the management end of the industry.

Apparently many good dairymen are carrying an unusually large number of heifers and future milkers through this fall and winter expecting much better prices and perhaps a "clean-up" next spring.

Now don't misunderstand me. Dairymen must keep their unusually good heifers, their foundation animals, and their high producing cows. But perhaps now is a good time to cull out and dispose of all low producing cows, all common heifers and all obsolete foundation animals.

I make this comment after observing conditions and after going carefully over the DAIRY OUTLOOK from the United States Bureau of Agricultural Economics. Mr. L. M. Davis of that bureau, who sent me the statement came out of Kansas and joined Uncle Sam's forces more than 14 years ago, and has made a careful study of the economics of dairying. After all, you know, it isn't fun to milk cows unless there is some kind of pay in it.

Mr. Davis says that "feed supplies are not seriously depleted in the

SPECIALIZED dairy territory where approximately 85 per cent of the total butter is produced. Even if production in areas outside of this territory is reduced by as much as a third as a result of the feed shortage, total production would be only about 5 per cent under what might usually be expected."

Therefore, the drought which has been serious, most serious in some sections of the country, is NOT a thing to break the dairyman's backbone. Mr. Davis spots the sore place that eventually may cause trouble in the dairy business, when he says, "substantial increases in numbers of milk cows and heifers are now taking place. This indicated that when the disturbed conditions due to drought and business depression have passed, the dairy industry is likely to find itself OVEREXPANDED, necessitating further readjustment to consumer demand for its products."

Now folks, that's the thing I want you to think about. A marked reduction in the production of dairy products during the past summer caused a very pronounced upturn in prices, particularly for butter. Naturally that increase in prices, which began along toward the last of July, has stimulated a production spurt, and IT perhaps more than anything else may be influencing you to hold on to the common heifers and low producing cows, which, before the price increase, you may have planned to dispose of.

In other words, folks, I want you to look at the dairy industry over a period of years rather than for this fall and winter. It takes a few years to grow a cow to maturity and production. Therefore, you can't afford to let a seasonal price increase of a few months influence you to feed cows anywhere near the border line of profit and loss.

Listen once more to Uncle Sam's dairy economist on this price situation. "Prices of dairy products are expected to advance moderately during this fall, prior to the usual seasonal drop in mid-winter, but to REMAIN AT A LOWER LEVEL than has obtained during the last few years, OWING to the PREVAILING TENDENCY TOWARD EXPANSION of the INDUSTRY."

The quotation I have just given you is worthy of study, and it is further strengthened by this statement, also from Mr. Davis. "Conditions in the dairy industry, such as increasing numbers of cows, may be expected to PREVENT any substantial strengthening of dairy prices."

Mr. Davis has something to say about the changes in agricultural conditions, and since what he has to say bears directly and indirectly on the dairy industry I want to try to bring you a few of his main comments on that topic also.

Figuratively speaking, only yesterday most of the farm work in this country was done with horses and mules. Today much of the farm work is done with machinery. Still, we go on producing hay, but tractors and motor driven machines don't eat hay. Naturally a lot of the hay has found an outlet through dairy cows because they are such good manufacturers. That has been one of the things that has encouraged dairying. The farmer

had the hay in many instances and could get the cows----and got 'em.

The use of larger agricultural machinery has made it possible for even a single farmer to produce more feed and crops than he could possibly produce say 10 or 15 years ago. One of the best ways to sell feed is to market it indirectly through some farm animal. The cow, as I have just said, is a good manufacturer, consequently the dairy industry got perhaps a little more than its share of the crops. More cows were put on to consume the plentiful supply of feed.

That's another natural way in which the dairy industry has expanded.

The use of alfalfa and sweet clover especially in many sections of the corn and wheat belts where dairying is already highly specialized, have further encouraged dairying in those sections. The growing of cowpeas, soybeans, velvet beans, lespedeza, and other legumes have been encouraging factors in developing dairying in the South.

All in all, dairying is a big business---in the three million dollar class--- but it seems to be running on a fairly full schedule.

But don't hurriedly cull your high producers, your good breeders, or all of your best young heifers. You will need them to keep the milk buckets full. On the other hand, remember that we have plenty of cows in the country, a lot of young heifers coming down the road to the barn, and if they all get in the barn---there's going to be a lot of milk coming out. We are consuming more milk all the time, and that's encouraging, but let's not increase the supply faster than the men, women and children can drink it. If we do---the price is bound to stay down. Therefore, in closing, let me urge you to make a careful survey of YOUR dairy situation before expensive winter feeding actually begins. If you have unprofitable cows---show them the gate. If you have some common heifers---invite the butcher to look them over. If you have obsolete breeders---thank them for past services, but don't encourage them to spend the winter in your barn eating expensive feed.

In other words, folks, dairying is a business, and as such it ought to pay for the time, work, and investment you have in the industry. If you over-do and overexpand the industry---there will be plenty of milk, but not much money. If you are conservative, and think and plan along sane lines and over a period of years---you'll still produce plenty of milk and perhaps make more money.

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CLOSING ANNOUNCEMENT: Ladies and gentlemen, you have been listening to Your Farm Reporter, radio spokesman for the United States Department of Agriculture in one of the regular Dairy programs broadcast from Station _____ in _____. This station broadcasts one of these Farm Flash programs 5 days in the week.

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YOUR FARM REPORTER AT WASHINGTON.

Monday, October 27, 1930.

NOT FOR PUBLICATION

Speaking Time: 10 minutes.

All Regions.

THE EDUCATIONAL VALUE OF BIG LIVESTOCK SHOWS.

OPENING ANNOUNCEMENT: At this time Station _____ takes pleasure in presenting one of the regular Washington Farm Reporter programs. The subject for today is---THE EDUCATIONAL VALUE OF BIG LIVESTOCK SHOWS---, and now Your Reporter will tell you some of the things he found out about this subject by interviewing specialists in the United States Bureau of Animal Industry. You will now hear from Your Washington Farm Reporter.

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Well folks, this is the 27th of October. Frost has already occurred in many sections of the country and Halloween is just around the corner. The National Dairy Show has just closed and now we look forward to the big national and international livestock shows and expositions which come off during November and the early part of December.

Doubtless many of you will attend one or more of these big livestock expositions this fall. Just for pleasure, the trip through one of these big expositions is well worth while. In addition to the pleasant trip there is an educational value to these shows---provided you attend with an idea of studying the exhibits and learning the latest "fashions" in the livestock industry.

During the great War, a story has it, a company of highly trained colored soldiers were ordered to go over the top and attack the enemy in a zig-zag formation. They were told that zig-zagging would prevent sharpshooters from picking them off. After the attack a colonel found one of the colored soldiers shot but still able to talk. "Look here, Mose," said the colonel, I thought I told you boys to zig-zag so you wouldn't get shot." "That's right, boss," replied the plucky black boy, "but the trouble was, I zigged when I ought to have zagged and zagged when I ought to have zigged."

Of course, I don't mean to imply that people attend these big livestock expositions in a zig-zag slipshod manner. Many of you attend these shows with some definite aim or purpose in mind. To my way of thinking, that's the best plan to follow. Go for a purpose---to find out what's new in the livestock industry, what's best in breeding, feeding, and marketing livestock.

Dr. C. D. Lowe is extension livestock specialist for the United States Department of Agriculture. Part of his job is to find out what's going on in the livestock industry. Naturally he attends these various livestock expositions, and is thoroughly acquainted with their worth and value to livestock producers.

As I was walking across the agricultural grounds the other day I met Dr. and Mrs. Lowe with a group of old friends over by the Smithsonian Institution. Mrs. Lowe's Georgia friends wanted to see Lindbergh's airplane the "Spirit of St. Louis." Naturally she took them across the grounds to the building where Lindbergh's plane is now on permanent exhibition. This gave Dr. Lowe and myself an opportunity to talk livestock, and we took advantage of the situation by opening up on the livestock expositions.

"Are you going to the International this year?" I asked.

"Oh, yes," he replied. "It's a part of my job to attend the big livestock shows and expositions. Besides I like to attend these big shows. because I always get something worth while from studying the exhibits and talking with others in attendance."

"Dr. Lowe," I said, "can a livestock farmer get anything that will help him in his business by attending some of these big shows?"

"You just bet he can," came the speaker's quick reply as he tossed a peanut at a park squirrel.

"Most of these big shows," he continued, "are held at the great stockyards. Now the stockyard is the center of the last phase of livestock production, and at one of these big livestock shows a visitor has the opportunity of observing and studying not just a few animals but literally thousands of them. In addition to the exhibition animals, other animals are arriving by the carloads for the general market. A visitor can study a whole carload of lambs, of barrows, of baby beef animals and see for himself just how different breeds and different feeding methods meet the final test. Why, there were more than 200 carloads of fat steers shown in competition at the International last year. A visitor interested in producing fat steers could have gained valuable information by observing these different steers, learning about the feed that produced and finished them and by talking to the men who grew and fed out the animals."

Dr. Lowe was talking fast, but I managed to get in this question.

"Who judges these animals at the big expositions?"

"Experts who know what the commercial buyers want, in fact the judges are selected from the packer buyers themselves," he answered as he handed the squirrel another peanut. "That makes the judging very practical because it enables a visitor to see what kind and type of animal sells for the most money at the market."

Looking across the grounds toward the Smithsonian building to see how much time we would have before the women folks came back, Dr. Lowe said, "We used to market steers when they reached a weight of around 1,500 pounds. The buyers today prefer younger steers weighing around 1,000 pounds per head or less. A visitor at the big shows and market centers can see the buyers weeding out these animals that are perhaps good, but not quite what the consuming public wants."

"Another example. We used to market our hogs when one would make the scale man put on the 300-pound weight. Now we like to market them at from 200 to 225 pounds. Again, we used to market our sheep in the form of mutton. Now we sell them chiefly as lamb. In other words, the live-stock industry is changing slowly but surely and changing according to the fancies of people at the dinner table. Livestock producers can see the manifestations of these slow changes at the big livestock shows."

At this moment our attention was attracted to the loud chattering of our squirrel friend calling to another squirrel down near the Museum building. He evidently told the other squirrel that Dr. Lowe had a pocket full of unusually good Virginia peanuts because the other squirrel was soon on the beech tree beside the first tree dweller taking peanuts like a baby beef at the feed box.

That reminds me of Dr. Lowe's comment that the baby-beef idea was largely developed through the activities of the 4-H Club members. They demonstrated that it could be done. The public liked it--consequently we produce a lot of baby beef today.

Foreign judges are present at many of the big, stock shows. That gives the producer an opportunity to see what the trend of livestock production is in Great Britain, Argentina, and other foreign countries that compete with us in the production of livestock, especially beef animals.

At the big livestock shows a visitor can study the breeding classes, the fat classes, the 4-H Club section, the educational exhibits from the U. S. Department of Agriculture, various State colleges of agriculture, and exhibits of grain and hay. He may also learn more about the marketing of different livestock and the operation of the large packing plants. All of these coupled with the fact that the show is held at the big stockyards, make the expositions worth while to the man who produces the animals back on the farm. The sportsman can get plenty of thrills by attending the night horse shows at the bigger expositions. If you attend one of the big shows this fall, get a catalog as soon as you arrive and study it carefully. Try to get some information that you can put to work in your business.

Voices coming up behind us indicated that Mrs. Lowe and her friends were returning so we had to close the interview, shake hands, and say good-bye to our squirrels. I might add that good peanut news evidently travels fast over squirrel radios because 7 frisky fellows had gathered around Dr. Lowe's squirrel "bread line" before we were interrupted by the ladies.

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Try and make your plans to attend the big shows this fall and you will find them well worth while.

CLOSING ANNOUNCEMENT: Once more we bring to a close the Washington Farm Reporter program broadcast from Station_____in cooperation with the Federal Department of Agriculture. The weather is getting cool and crisp now and in a few days the Reporter is going to talk to us about slaughtering hogs and making sausage. Don't miss that broadcast.

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In 340

YOUR FARM REPORTER AT WASHINGTON

Wednesday, October 29, 1930.

NOT FOR PUBLICATION

Speaking Time: 10 Minutes.

Poultry Interview No. 59: CLOSE-UPS OF THE MARKET SITUATION ABROAD

ANNOUNCEMENT: At this time we present again Your Farm Reporter at Washington who brings us today a 10-minute report of special interest to poultry raisers. Your Reporter announces his topic as, "Close-Ups of the Poultry and Egg Situation Abroad." He gives you the results of a recent interview with Mr. Rob Slocum, U. S. Department of Agriculture economist, who spent several weeks in Europe last summer observing conditions at first hand. All ready, Mr. Reporter.....

These close-ups reveal many interesting things. I might say, in beginning, that many of them have to do with quality. In fact, when you consider the situation in European countries, in its relation to our own situation, quality seems to be the big item. Another feature that stands out boldly, by contrast, is the part that refrigeration plays in the poultry industry here in America. Probably we don't realize how largely our marketing system depends upon modern refrigeration.

But, I'm assuming that while you may be interested in the situation in these other countries, you will be more interested in HOW this situation may affect us, in this country.

And so, I'm going to start as Mr. Slocum started, with the logical question, "What opportunities are there for developing a market in Europe for poultry products from the United States?"

At present, you know, countries like England, France and Germany are still importing considerable amounts of both poultry and eggs. But very little of these come from the United States. They bring in most of their eggs from Denmark and other surplus-producing countries nearer at hand.

Now, probably the first thing you'd notice in a close-up view of the situation, is that the poultry industry is growing. This is true in all the countries visited, Mr. Slocum said----in England, Germany, France, Holland, Belgium and Switzerland. Volume of production is definitely on the increase.

Well, because we are not exporting much to Europe now, and because these countries are increasing their production, Mr. Slocum says his first reaction was not optimistic. There looked to be a pretty slim chance of the United States building up a market, under these circumstances.

"But then," he told me," as I went a little further, I wasn't at all sure but that there might be a chance. I concluded that there might be a good opportunity, if we based our export trade purely on the basis of quality. I do not believe, that we can begin to compete with other countries on any other basis. With our price levels and with their supplies of cheap eggs, we can't send over ordinary eggs and make a profit. The opportunity, if there is one, lies in the fact that top-quality eggs in these countries are relatively limited."

Now, to understand this, you have to understand the conditions in these countries. And Mr. Slocum says that he was surprised more than once.

In London, he found some very good quality eggs, marketed under the British mark. And some good eggs came from other parts of the British Isles. But the quality of imported eggs, on the whole, was disappointing---even to Danish eggs, which we hear so much about. Some showed evidences of age, some were small, and many were marketed dirty.

But even so, much more emphasis seems to be placed on these external characteristics than on internal qualities. According to Mr. Slocum it is quite common for eggs to be received in wholesale packages and then be sent on to the retailer without candling.

"After noting this," he remarked, "I was really not so surprised as I might have been to see bad eggs opened by people eating breakfast, even in the better hotels. You might live a long time without seeing that happen in this country. But over there it is really quite common. You might almost say it is the accepted thing, to expect a bad egg occasionally."

"This was in England, and we had about the same experience in Germany. They do have good eggs in Germany, called Trinkeier (pronounced Trink-ire), which are supposed to be suited to the most exacting uses. But I was informed that during the low-producing season even these choice eggs were frequently of very poor quality."

"And so, because of these situations, I feel that there is a place for really fine quality eggs from this country. These eggs would have to be protected, of course - they would have to be oil-processed - so that they would hold their quality during shipment. And it would mean also that we

would have to create a demand for fine quality eggs, and that we would have to build up a market in a systematic, organized way."

As a matter of fact, he said, per capita consumption in these countries is still considerably below our consumption in the United States. So there is plenty of room for increased use of eggs; and in fact various proposals have been made looking to some action along this line.

"It seems to me that the American egg producer might well keep this in mind, in considering organized effort," Mr. Slocum said. "It seems to me that we might well do all that can be done, inexpensively, to furnish these countries with ideas about increasing egg consumption. Any increase in consumption would help world conditions, and therefore it wouldn't hurt the American markets and it might help."

Now, I think you might be interested in just a few close-ups of poultry marketing.

Poultry consumption is quite low in England. "I was surprised at first," Mr. Slocum told me, "Because so many eating places serve table d'hote dinners and poultry is usually featured. But I soon learned the reason. The great mass of English people are unable to get poultry very often, because distribution facilities are lacking and refrigeration has not been very highly developed. For the most part people don't find poultry on sale at the stores where they usually buy and where they have credit. If they want a chicken for dinner they ordinarily will go to the fish-monger, because he is the only one who has the ice necessary to handle poultry.

"You know, it is possible for the householder in England to get along pretty well without ice, except for 2 or 3 weeks in the summer. So, many of them don't use it at all. They haven't the need for it that we do, and you seldom find a food store, even, equipped with modern refrigeration.

"I should say this is one of the big handicaps of the dressed poultry industry in England. And of course it also illustrates a big reason why our industry has grown so rapidly. We have so many retail outlets, and we're increasing their number all the time. We owe a big debt to refrigeration."

On the whole, dressed poultry wasn't nearly as well dressed as it is in the United States, Mr. Slocum found. For one thing, the English kill by dislocating the neck and this leaves the neck in a rather unsightly condition. Then, their system of plucking is hardly up to our standard. Pin feathers are often left in. Many of the American visitors felt that they had to skin the cooked poultry before they ate it, Mr. Slocum said.

Generally speaking, similar conditions were found in the other countries visited. On the average, the quality of our poultry compares very, very favorably with the poultry seen on European markets.

ANNOUNCEMENT: Your Farm Reporter at Washington has just reported the results of his interview in regard to the poultry and egg situation in European countries. He'll be back again at this same time tomorrow, with his weekly report from the Federal Farm Board.

Thursday, Oct. 30, 1930

1.9
In 340
YOUR FARM REPORTER AT WASHINGTON.

Federal Farm Board Interview No. 58:

Types of Grain Co-ops.

ANNOUNCEMENT: Your Farm reporter at Washington will now tell us of his most recent visit to the Federal Farm Board, and what he found out from specialists there about co-operation. It seems he saw the grain man this week. Maybe he can tell us something about our grain associations ---- How about it, Mr. Reporter? --

You know our Farmers' National Grain Corporation. It embraces all different types of grain marketing associations; yours as well as mine. It is a co-op of co-ops; through which all our grain associations can work together on a national program for their common good.

Regional associations, and wheat pools, and cooperative sales agencies, and associations of elevators all own stock in the National, Mr. E. J. Bell, Jr., the grain specialist of the Federal Farm Board's co-op division, tells me. And he suggests that we ought to know the type of organization we belong to, and how it works, and how we can make it most valuable to ourselves.

Of course, most of us know about local elevator associations. They have been with us, and many of us have been with them for a long time. Mr. Bell tells me that we now have four thousand local elevator associations scattered through every important grain-growing section of the country.

As a rule, the stock in the Association is owned by the farmers. They hire a manager to run the business in competition with other buyers at the shipping point. If there are any profits at the end of the year, the stockholders get a certain interest payment on the capital stock. Any earnings above that, are divided on the basis of patronage. Unless the local elevator is connected with some co-op sales agency, the grain is sold through a privately owned commission firm at a terminal market, or direct to the mills and other buyers who have contact with the local elevator manager.

That's the general picture of a local elevator association. But, of course, in different sections, under different conditions, there are many little differences in the way they operate. That's the reason, Mr. Bell tells me, local associations can not affiliate directly with the National Grain Corporation. To supervise the activities of hundreds of little locals and give them direct personal service would just be too much of a job. It would be impractical.

But the local joins with other local associations to form a federation which becomes a stock-holder of the National. Thus the individual farmer

member of the local elevator becomes part of the great national organization.

A second type of grain cooperative is the cooperative line elevator association, in which, the growers own stock in the central organization instead of in the local. The manager of the local is employed by and is under the direction of the central office. That type of co-op has not made as great progress in the United States as in Canada.

A third type of grain co-op directly affiliated with the National Grain Corporation is the sales agency. As a rule, the sales agencies have commenced operation on the terminal markets, and then have made a bid for the business of local organization in order to boost the volume of grain they handle. They sell either for local elevator associations or for individual farmers who ship their grain direct. Stock in the sales agencies is owned either by individual growers or local associations. The sales agencies often help locals in their bookkeeping, and furnish financial help. In fact, they benefit the local in much the same way as do the state associations of farmers' elevators.

Then there is the wheat pool. It is a separate and distinct type of organization, in which the farmer holds membership direct. Wheat pools, Mr. Bell explains, are generally non-profit, non-stock organizations, which sell the grain of their members all through the crop season. Farmers receive an average price for the season for each of the chief grades and qualities of grain in the pool. A certain part of the market price is advanced when the grain is delivered, and later payments are made as the grain is sold. One of the chief aims of the wheat pool is to regulate the sale of grain according to the market demand. In this way they seek to have a stabilizing influence on the market.

Besides the wheat pools, and the grain sales agencies, and cooperative line elevator associations a new type of farmers grain co-op has come into existence during the past year. The new type organizations are known as regional grain cooperatives. They give the grower three options, as do some of the other types of farmers' organizations. He can sell for cash at the market price when he delivers the grain. Or he can deliver his grain for storage, get an advance on his storage ticket, and call the grain for sale when he wants to. Or he may enter a seasonal pool and get the average price for the season. Of course, the grain grower at the time he delivers his grain has to say which way he wants to sell.

The regional is a sort of combination of a sales agency, an elevator association, and a wheat pool. Most of the stock is owned by local elevator associations. In some cases, a pool is merged with the regional by taking stock in the regional. The regionals provide sales service for farmers who ship direct, as well as for local elevator associations and also provide the pooling privilege.

As Mr. Bell points out, whether it is a regional, a pool, a co-op sales agency or a cooperative line elevator association, the control must be in the hands of the farmers themselves, if the organization is to be a member of the National Grain Marketing Corporation. That has to be the case if the organizations are to be eligible for loans from Intermediate Credit Banks and the Federal Farm Board. According to Federal law, to be eligible for such loans, the membership of an association must consist only of producers of agricultural products, and the association must be operated for the benefit of its members. The business done for outsiders must be no

1. The first part of the report deals with the general situation of the country. It is a very interesting and informative study of the country's development and progress.

2. The second part of the report deals with the economic situation of the country. It is a very detailed and comprehensive study of the country's economic development and progress.

3. The third part of the report deals with the social situation of the country. It is a very detailed and comprehensive study of the country's social development and progress.

4. The fourth part of the report deals with the political situation of the country. It is a very detailed and comprehensive study of the country's political development and progress.

5. The fifth part of the report deals with the cultural situation of the country. It is a very detailed and comprehensive study of the country's cultural development and progress.

6. The sixth part of the report deals with the environmental situation of the country. It is a very detailed and comprehensive study of the country's environmental development and progress.

greater than the business done by the association for its own members; and the association must either limit each member to one vote or limit the dividend on capital stock to 8 per cent a year.

Those general provisions are designed to guarantee that the government help will go only to those organizations which are truly farmer owned and farmer controlled.

As Mr. Bell says, the National Grain Marketing Corporation is made up of all kinds of grain co-ops which have grown up under a wide variety of conditions. Members in all these valuable types of association gain that strength which is in Union by the affiliation of their organizations with the National.

ANNOUNCEMENT: Your farm reporter at Washington has pointed out the different types of associations which now make up the Farmers' National Grain Marketing Corporation, as outlined by Mr. E. J. Bell, Jr., of the co-operative marketing division of the Federal Farm Board. Mr. Bell suggests that every grain farmer should know the workings of the co-op in his locality, state or region.

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1. The first part of the paper is devoted to a general discussion of the problem of the existence of solutions of the system of equations

which are satisfied by the functions u_i and v_i in the domain G of the plane. It is shown that the system has a solution if and only if the functions f_i and g_i satisfy certain conditions.

2. In the second part of the paper the problem of the existence of solutions of the system of equations

is considered. It is shown that the system has a solution if and only if the functions f_i and g_i satisfy certain conditions.

3. In the third part of the paper the problem of the existence of solutions of the system of equations

is considered. It is shown that the system has a solution if and only if the functions f_i and g_i satisfy certain conditions.

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YOUR FARM REPORTER AT WASHINGTON

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Speaking Time: 10 Minutes.

Dairy Interview No. 58: THE STORY OF DAIRY HERD IMPROVEMENT ASSOCIATIONS

ANNOUNCEMENT: Friday---and again the hour at which Your Farm Reporter at Washington brings his weekly report to dairy farmers. In his 10 minutes with you today Your Farm Reporter chooses to tell a story: The story, he informs me, of dairy herd improvement association in the United States. All right, Mr. Reporter.

Perhaps you belong to a Dairy Herd-Improvement Association. But if I were betting, I'd bet that you do not.

At first thought this might sound like a pretty broad gamble. But if you'll allow me to assume that these particular ether waves reach dairy farmers all over the United States, the odds are all in my favor. If I were to select at random, the chance of my picking a Dairy Herd-Improvement Association member would be not much more than 1 in 50. Which is only another way of saying that only about 2.3 per cent of American dairy farmers are members of associations.

So, in view of this, it may not be amiss to tell you about my interview with Mr. J. E. Dorman, who is a dairy herd-improvement specialist of the U. S. Department of Agriculture.

What is a Dairy-Herd-Improvement Association? and what are its purposes? and what have Dairy Herd-Improvement Associations accomplished? Well, whether you belong to an association or not, I believe you may be interested in Mr. Dorman's answers to these questions.

If you are a member, or have been, you of course are much better acquainted with the nature of dairy herd-improvement work than I am. So you'll pardon me if I cover familiar ground again, briefly.

This is the way Mr. Dorman outlines it:



"A Dairy Herd-Improvement Association is simply an organization of about 26 dairy farmers, who cooperate to employ a trained man to test their cows for economical and profitable production of milk and butterfat.

"This tester spends one day a month on each farm. While there he determines the production of milk and butterfat of each cow in the herd; and also the amount of feed that is given each cow for one day. From these figures, he estimates the production, the amount of feed, and the cost of feed for the month.

"Then, with these records as a guide, the farmer and the tester figure out better and more economical methods of care, feeding, and management. These records make it possible to eliminate all cows which do not respond profitably to good care and good feeding. And in addition, the production records of the cows may be compared with the records of their daughters. And thus they become an accurate check on the value of the herd sire. For, if the daughters of the sire do not produce more economically than their dams, it indicates that the sire is not good enough to head that herd.

"In other words," Mr. Dorman told me, "a Dairy Herd-Improvement Association is an organization to promote business methods in dairy herd management."

Now, the association is ordinarily organized by the dairymen themselves, with the help of the county agent and the State dairy field specialist. There is an organization meeting, and at this meeting the prospective members sign a constitution and by-laws, which will govern the organization for 1 year. Officers are elected, who will be in charge of the association's business, which consists largely of financing and employing a tester,

I think we might devote a few words to the tester. Usually he is an expert, trained for this particular work. If he is a good one, he will be capable of advising with dairymen about feeding, breeding and farm crops problems, as well as keeping the records of the herd. He visits the farm 12 times a year, and then at the end of the year he prepares a report. This report shows the production of milk and butterfat of each cow in each herd. It shows the amount and cost of feed consumed by each cow. And it shows the income over cost of feed returned by each cow.

From these records, therefore, the member is able to tell just how much profit he is making from each cow; and he can act accordingly.

Now, you may have known all this for years. But perhaps you didn't know, for instance, that the United States is still sort of lagging behind the procession, as far as dairy herd-improvement associations are concerned.

According to Mr. Dorman, the first genuine cow-testing associations grew up in Denmark, about 35 years ago. Germany and Sweden joined the parade almost immediately, but the United States waited 11 years, until 1906. England waited until 1914, the year of the World War.

The latest figures available show that 31.3 per cent of all dairy cows in Denmark are tested; 20 per cent in Holland; 17 per cent in Scotland; 11 per cent in Belgium; 10 per cent in Germany. Only two great dairy countries have smaller percentage than our own 2.3.

Considering only cows on test, both Germany and Denmark lead the United States in average milk production.

However, the United States does lead in average butterfat production, of tested cows. If we took average butterfat production of ALL cows, though, we'd probably drop toward the bottom of the class, since such a small percentage are represented by tests.

Now, on January 1, 1930, there were in this country a total of 1,143 associations, in 47 States, providing for the testing of more than 1/2 million cows. This is quite an increase, when we consider that our first association was organized less than 25 years ago.

The records of that first association, by the way, have been preserved. When it completed the first year's work it was found that the cows on test averaged 279 pounds of butterfat, with an average income over cost of feed of \$94.

Compare this with the year 1929. In that year the Bureau of Dairy Industry tabulated the yearly records of more than 250,000 cows. The bureau found that the yearly butterfat production of these cows averaged approximately 296 pounds, and the average income over cost of feed was \$117. It is estimated that at the present time the average production of all dairy cows in the United States is around 180 pounds of butterfat. This is 116 pounds less than the average of cows tested in Dairy Herd-Improvement Associations. The difference, Mr. Dorman says, is due to the fact that testing has led to better feeding, the use of better bulls, and to intelligent culling.

Now, while Mr. Dorman did not say this in so many words, I am sure he would okch it hearily. It seems that at no time in our history has dairy herd-improvement work been so important as it is right now. And it looks as if it were going to get more and more important.

To believe this, you have only to look at the economic side of the dairy business. Turn to the outlook reports prepared by the Bureau of Agricultural Economics. The key to profits, at least in the next few years, is going to be increasingly efficient production. This means good feeding, good care, good breeding, and above all, perhaps, it means the

very close culling out of the low-producing cows. You can't do all this--you can't cull intelligently--unless you have accurate records.

The answer, it would seem, lies in the Dairy Herd-Improvement Association.

Now, if you would like to have more information on dairy herd-improvement work, you might write for that bulletin called "Dairy Herd-Improvement Association, and Stories the Records Tell." It is Farmers' Bulletin No. 1604-F. And if you want to organize an association in your community, get in touch with your county agent, or with your State dairy specialist.

ANNOUNCEMENT: This concludes today's report by Your Farm Reporter at Washington. The number of that bulletin he mentioned is Farmers' Bulletin 1604-F. Write either to Station _____ or to the U. S. Department of Agriculture in Washington, D. C., and copies will be sent you free of charge, as long as the supply lasts.
